

UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

IN-FLIGHT REFUELING

AFSC 1A0X1

OSSN 2296

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**OCCUPATIONAL ANALYSIS PROGRAM
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION AND TRAINING COMMAND
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PREFACE

This report presents the results of an Air Force Occupational Survey of the In-Flight Refueling career ladder, Air Force Specialty Code (AFSC) 1A0X1. Authority for conducting occupational surveys is contained in AFI 36-2623. Copies of this report and pertinent computer printouts are distributed to the Air Force Functional Manager, the technical training location, all major using commands, and other interested operations and training officials.

The survey instrument was developed by First Lieutenant Nicole H. Raney, Inventory Development Specialist, with computer programming support furnished by Mrs. Jeanie C. Guesman and administrative support provided by Mr. Richard G. Ramos. Second Lieutenant Diedre N. Presley, Occupational Analyst, analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Roger W. Barnes, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS).

Additional copies of this report can be obtained by writing to AFOMS/OMYXI, 1150 5th Street East, Randolph AFB Texas 78150-4449, or by calling DSN 487-5543. For information on the Air Force occupational survey process or other on-going projects, visit our web site at <http://www.omsq.af.mil>.

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SUMMARY OF RESULTS

1. **Survey Coverage:** The In-Flight Refueling career ladder was surveyed to obtain current task and equipment data for use in evaluating current training programs. Survey results are based on responses from 363 Active Duty, National Guard, and Air Force Reserve respondents (58 percent of total number surveyed). The survey sample satisfactorily represents the overall career ladder population.
2. **Specialty Jobs:** One cluster was identified in the career ladder analysis. The four jobs that make up this cluster were: In-Flight Refueler/Boom Technician, CCTS Flight Instructor, Boom Operator Instructor/Evaluator, and Management. These four jobs were directly involved in performing tasks very technical in nature. The Management Job reflects a combination of technical and supervisory task performance.
3. **Career Ladder Progression:** Progression in this career ladder is somewhat unique in that personnel across all skill levels perform common aircrew activities. Small increases in the time spent on supervisory or management duties can be seen as one progresses up to the 9-skill level. Three-skill level personnel spend the vast majority of their job time performing common aircrew activities. At the 5-skill level, personnel are heavily involved in performing common aircrew activities, in-flight air refueling and cruising activities, and cargo and passenger handling activities. At the 7- and 9-skill levels and at the Chief Enlisted Manager (CEM)-skill level, members still perform a substantial amount of technical tasks, although a shift toward supervisory and management functions is evident.
4. **Training Analysis:** A comprehensive review of the Specialty Training Standard (STS) found that most paragraphs were supported by the survey data. However, a few areas in the STS display tasks with less than the recommended percent members performing. These areas should be reviewed to determine any modifications required to improve the effectiveness or efficiency of training. The Plan of Instruction was not covered in this report due to recent changes being worked at the technical school.
5. **Job Satisfaction Analysis:** In general, job satisfaction among AFSC 1A0X1 personnel is high. Data show AFSC 1A0X1 personnel having somewhat higher satisfaction indicators than their counterparts in other aircrew AFSCs with the exception of first- and second-enlistment personnel. Respondents within the various job groups find their work interesting and feel their talents and training are well utilized.
6. **Implications:** Survey results indicate the present classification structure is supported by survey data. Career ladder training documents are well supported by survey data and the overall training system is perceived to be working well, based on career ladder member responses. Responses by sample personnel reflect positive feelings toward their jobs and training.

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**OCCUPATIONAL SURVEY REPORT (OSR)
IN-FLIGHT REFUELING
(AFSC 1A0X1)**

INTRODUCTION

This is a report of an occupational survey of the In-Flight Refueling (AFSC 1A0X1) career ladder completed by the Air Force Occupational Measurement Squadron (AFOMS). These data will be used to review the AFMAN 36-2108 *Specialty Description* and training documents. The last OSR was published in May 1994.

Background

As described in the AFMAN 36-2108 *Specialty Description*, dated 31 October 1993, personnel in this career ladder: perform in-flight refueling aircrew duties; perform visual and operational check of air refueling and associated systems and equipment; perform preflight, through-flight, and postflight inspections; accomplishes preflight and postflight records and reports; operates in-flight boom controls and switches to safely affect contact between tanker and receiver aircraft; monitors control panels for proper operations of equipment during air refueling and advises receiver pilot of actions required to safely maintain position within the air refueling envelope; keeps tanker pilot informed as to progress of air refueling operations; performs emergency operations and procedures as required for emergency off-load of fuel; ascertains fuel, personnel, cargo, and emergency and special equipment weight and distribution to compute aircraft weight and balance; ensures aircraft is properly loaded within safe operating limits; and applies weight and balance data in computing takeoff and landing data. They also ensure adequate safety equipment and passenger comfort items are on board aircraft.

Entry into the career ladder currently requires an Armed Services Vocational Aptitude Battery Electronic score of 56. The sequence of technical training for this AFSC begins with attending a 74-day Boom Operator Initial Qualification Training Course conducted at Altus AFB OK. This consists of academics for 39 days and flying for 35 days. The course curriculum includes in-flight training in KC135R systems, normal and abnormal operating procedures, celestial observations, weight and balance data computations, cargo loading operations, associated duties, and in-flight refueling duties. Upon successful completion of the Boom Operator Initial Qualification Training Course, students are awarded the 3-skill level.

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SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) OSSN 2296, dated June 1997. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, pertinent tasks from the previous survey instrument, and data from the last OSR. The preliminary task list was refined and validated through personal interviews with 47 subject-matter experts (SMEs) at the technical training location and at the following operational bases:

| <u>BASE</u> | <u>UNIT VISITED</u> |
|--------------------|----------------------------|
| Altus AFB OK | 97 OSS/DOU HQ USAF/XOOT |
| Travis AFB CA | 6 ARS/DOB |
| McConnell AFB KS | 22 OG/OGV |
| Randolph AFB TX | AFOMS/OMD |

The resulting JI contains a comprehensive listing of 333 tasks grouped under 9 duty headings and a background section requesting such information as grade, duty title, organizational level, type of facility where employed, and aircraft in which a current qualification is held.

Survey Administration

From May through October 1997, Base Training Offices administered the inventory to 627 eligible Active Duty, National Guard, and Air Force Reserve 1A0X1 personnel. To qualify for the survey, personnel were required to hold a duty AFSC of 1A031, 1A051, 1A071, 1A091, or 1A000. Excluded from the survey were personnel in PCS, student, or hospital status, or with less than 6 weeks on the job. Job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Personnel Center, Randolph AFB TX.

Each individual who completed the inventory first completed an identification and biographical information section and then checked each task performed in his or her current job. After checking all tasks performed, each member then rated each of these tasks on a 9-point scale,

showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount time spent).

To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time spent for each task. This procedure provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

Survey Sample

Personnel were selected to participate in this survey so as to ensure an accurate representation across major commands and paygrade groups. JI, Training Emphasis (TE), and Training Difficulty (TD) booklets were hand delivered to the following bases to achieve the best sample representation: Altus AFB, Fairchild AFB, Grand Forks AFB, McConnell AFB, McGuire AFB, Travis AFB, and March AFB. Table 1 reflects the 1A0X1 personnel sample as of March 1997. The 363 respondents in the final sample represent 27 percent of the total assigned personnel (only 627 surveyed) and 58 percent of those personnel surveyed.

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. While most participants in the survey process completed a USAF JI, selected senior AFSC 1A0X1 personnel were also asked to complete booklets rendering judgments on task TE or TD. The TE and TD booklets were processed separately from the JIs. The information gained from these task factor data is used in various analyses and is a valuable part of the training decision process.

Training Emphasis (TE). TE is a rating of the amount of emphasis that should be placed on tasks in entry-level training. The 42 senior AFSC noncommissioned officers (NCOs) who completed a TE booklet were asked to select tasks they felt required some sort of structured training for entry-level personnel and then indicate how much training emphasis these tasks should receive, from 1 (extremely low emphasis) to 9 (extremely high emphasis). Structured training is defined as training provided at resident technical schools, field training detachments, mobile training teams, formal on-the-job-training (OJT), or any other organized training method. The interrater reliability was excellent, indicating very strong agreement among the 42 raters as to which tasks required some form of structured training and which did not. The average TE rating was 2.88, with a standard deviation of 2.28. Any task with a TE rating of 5.16 or above is considered to have high TE.

TABLE 1
1A0X1 PERSONNEL SAMPLING

TOTAL ASSIGNED = 1,331*

TOTAL NUMBER SURVEYED = 627**

TOTAL IN SURVEY SAMPLE = 363

PERCENT OF ASSIGNED IN SAMPLE = 27%

PERCENT OF SURVEYED IN SAMPLE = 58%

* Assigned strength as of March 1997

** Excludes personnel in PCS, student, or hospital status, or less than 6 weeks on the job
ONLY LARGER BASES REPRESENTED (47% Sampling): Altus AFB, Fairchild AFB,
Grand Forks AFB, McConnell AFB, McGuire AFB, Travis AFB, March AFB

Task Difficulty (TD). TD is an estimate of the amount of time needed to learn how to do each task satisfactorily. The 40 senior NCOs who completed TD booklets were asked to rate the difficulty of each task using a 9-point scale (extremely low to extremely high). Interrater reliability was acceptable, with high agreement. Ratings were standardized, so tasks have an average difficulty of 5.00 and a standard deviation of 1.00. Any task with a TD rating of 6.00 or above is considered to be difficult to learn.

When used in conjunction with the primary criterion of percent members performing, TE and TD ratings can provide insight into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting entry-level jobs.

SPECIALTY JOBS (Career Ladder Structure)

The occupational analysis process begins with an examination of the career ladder structure. The structure of jobs within the In-Flight Refueling career ladder was examined on the basis of similarity of tasks performed and the relative percent of time spent ratings provided by job incumbents, independent of other specialty background factors.

The first step in the analysis process is to identify the structure of the career ladder in terms of the jobs performed by the respondents. Comprehensive Occupational Data Analysis Programs (CODAP) assist by creating an individual job description for each respondent based on the tasks performed and relative amount of time spent on the tasks. The CODAP automated job clustering program then compares all the individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and then combines them to form a composite job description. In successive stages, new members are added to the initial group or new groups are formed based on the similarity of tasks performed and time spent ratings.

The basic group used in the hierarchical clustering process is the Job. When two or more jobs have a substantial degree of similarity in tasks performed and time spent on tasks, they are grouped together and identified as a Cluster. The structure of the career ladder is then defined in terms of jobs and clusters of jobs. The resulting job structure information can be used to evaluate the accuracy of career ladder documents (i.e., AFMAN 36-2108 *Specialty Descriptions*, the Career Field Education and Training Plan, and Specialty Training Standard (STS)) and to gain a better understanding of current utilization patterns.

Overview of Specialty Jobs

Structure analysis identified one cluster within the survey sample. Within this cluster, four jobs were identified. Based on task similarity and relative time spent, the jobs performed by AFSC 1A0X1 personnel are illustrated in Figure 1. A listing of those jobs is provided below. The stage (ST) number shown beside each title is a reference to computer-printed information; the number of personnel in each stage (N) is also shown.

I. IN-FLIGHT REFUELING CLUSTER (ST009, N=363)

- A. In-Flight Refueler/Boom Technician Job (ST038, N=196)
- B. Combat Crew Training School (CCTS) Flight Instructor Job (ST033, N=27)
- C. Boom Operator Instructor/Evaluator Job (ST045, N=72)
- D. Management Job (ST011, N=7)

The respondents forming these jobs account for 98 percent of the survey sample. The remaining 2 percent are performing tasks or a series of tasks that did not group with any of the defined jobs. Job titles given by respondents representative of these personnel include: Flight Mission Scheduler, Command Evaluator, Ground Scheduling, Flight Chief, In-Flight Refueling Program Manager, and Senior Program Manager.

Group Descriptions

The following paragraphs contain brief descriptions of the jobs identified through the career ladder structure analysis. Table 2 presents the relative time spent on duties by members of these specialty jobs. Selected background data for these jobs are provided in Table 3. Representative tasks for all the jobs are contained in Appendix A.

I. IN-FLIGHT REFUELING CLUSTER (ST009). The 363 airmen forming this job (98 percent of the survey sample) are the essence of this career ladder. It is clearly evident, once an airman graduates from the technical school, their remaining career will consist of a very technical job, with some supervisory roles, as they progress. Most of these airmen are combat control team members. These individuals perform a very broad job, averaging 157 tasks, covering every duty in the II. The majority of their time is spent performing tasks under Duty E (Performing Common Aircrew Activities), Duty G (Performing In-Flight Air Refueling and Cruising Activities), Duty H (Performing Cargo and Passenger Handling Activities), and Duty F (Performing Preflight and Postflight Activities).

Four jobs were identified within this cluster: In-Flight Refueler/Boom Technician Job, Boom Operator Instructor/Evaluator Job, Combat Crew Training School (CCTS) Flight Instructor Job, and Management Job.

IN-FLIGHT REFUELING CLUSTER

(N = 363)

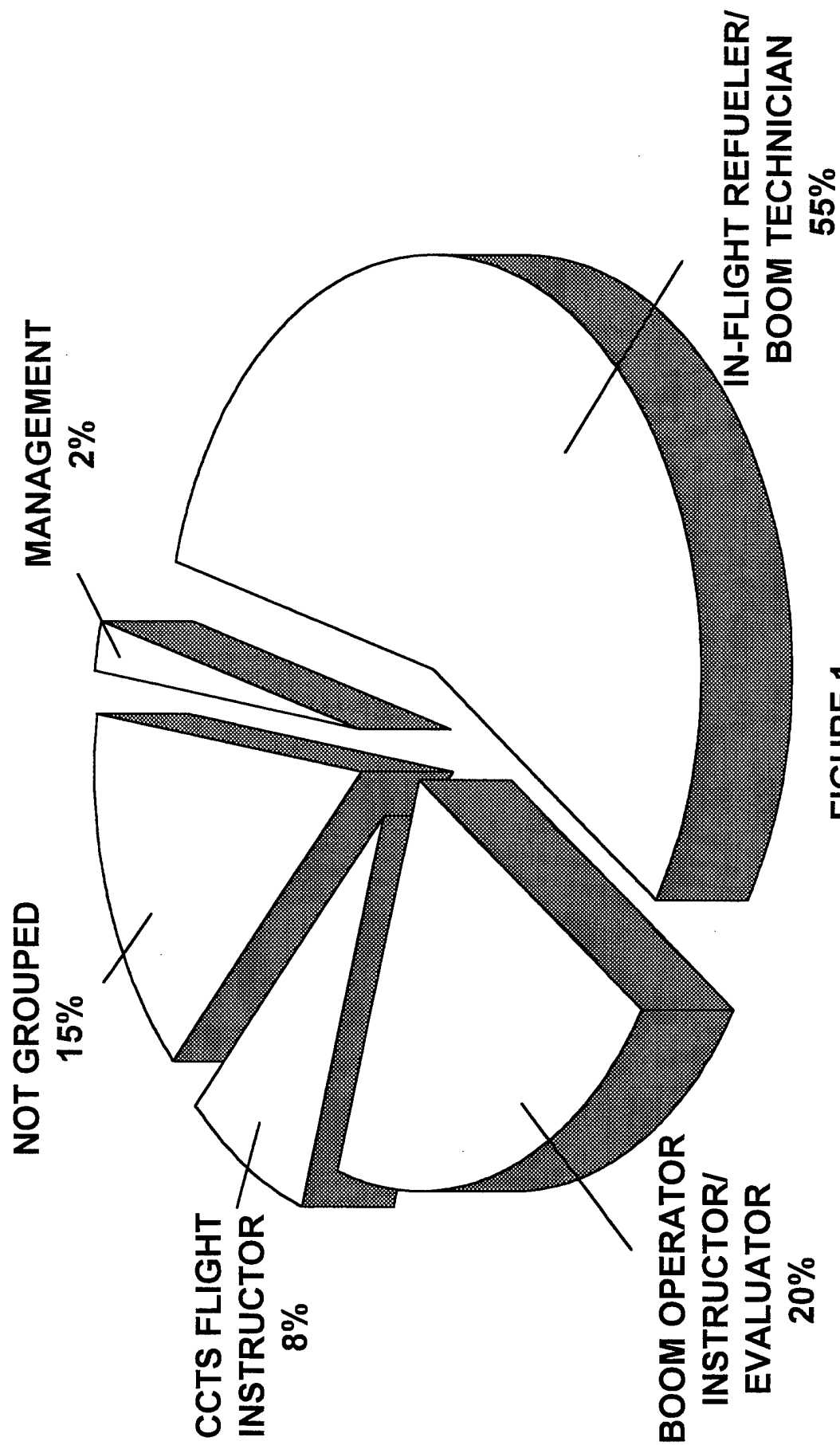


FIGURE 1

TABLE 2

RELATIVE PERCENT TIME SPENT PERFORMING DUTIES BY SPECIALTY JOBS

| DUTIES | IN-FLIGHT REFUELING CLUSTER | | | |
|--|--|---|---|----------------------------|
| | IN-FLIGHT REFUELER/BOOM TECHNICIAN (ST038, N=196) | CCTS FLIGHT INSTRUCTORS (ST033, N=27) | BOOM OPERATOR/ INSTRUCTOR/ EVALUATOR (ST045, N=72) | MANAGEMENT (ST011, N=7) |
| A PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 3 | 10 | 15 | 23 |
| B PERFORMING TRAINING ACTIVITIES | 3 | 13 | 11 | 8 |
| C PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER SYSTEM ACTIVITIES | * | 2 | 2 | 8 |
| D PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | * | 1 | 1 | 3 |
| E PERFORMING COMMON AIRCREW ACTIVITIES | 27 | 27 | 21 | 15 |
| F PERFORMING PREFLIGHT AND POSTFLIGHT ACTIVITIES | 12 | 12 | 9 | 6 |
| G PERFORMING IN-FLIGHT AIR REFUELING AND CRUISING ACTIVITIES | 27 | 25 | 20 | 12 |
| H PERFORMING CARGO AND PASSENGER HANDLING ACTIVITIES | 23 | 9 | 17 | 15 |
| I PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES | 4 | * | 4 | 10 |

* Denotes less than 1 percent

NOTE: Columns may not add to 100 percent due to rounding

TABLE 3

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

| | IN-FLIGHT REFUELING CLUSTER | | | |
|--|---|----------------------------------|---|-------------------|
| | IN-FLIGHT REFUELER/BOOM TECHNICIAN JOB | CCTS FLIGHT INSTRUCTOR JOB | BOOM OPERATOR INSTRUCTOR/ EVALUATOR JOB | MANAGEMENT JOB |
| NUMBER IN GROUP | 196 | 27 | 72 | 7 |
| PERCENT OF SAMPLE | 54% | 7% | 20% | 2% |
| PERCENT IN CONUS | 98% | 100% | 100% | 86% |
| DAFSC DISTRIBUTION: | | | | |
| 2E831 | 25% | 0% | 1% | 0% |
| 2E851 | 34% | 30% | 7% | 0% |
| 2E871 | 36% | 67% | 63% | 86% |
| 2E891 | 3% | 4% | 18% | 0% |
| 2E800 | 2% | 0% | 11% | 14% |
| COMPONENT STATUS | | | | |
| ACTIVE DUTY | 76% | 100% | 64% | 86% |
| NATIONAL GUARD | 15% | 0% | 15% | 14% |
| RESERVE | 9% | 0% | 21% | 0% |
| PREDOMINANT GRADE(S) | E-5 | E-5 | E-7 | E-6 |
| AVERAGE MONTHS IN CAREER FIELD | 83 | 116 | 147 | 174 |
| AVERAGE MONTHS IN SERVICE | 109 | 145 | 186 | 223 |
| PERCENT IN FIRST ENLISTMENT (1-48 MOS TAFMS) | 32% | 0% | 2% | 0% |
| PERCENT SUPERVISING | 20% | 59% | 79% | 29% |
| AVERAGE NUMBER OF TASKS PERFORMED | 148 | 154 | 207 | 203 |

A. In-Flight Refueler/Boom Technician Job (ST038). The 196 airmen forming this job (54 percent of the survey sample) represent the core job of the career ladder. They perform a number of tasks dealing specifically with operating the refueling boom during air-to-air refueling, performing common aircrew duties, and cargo/passenger handling. Members with this job spend 27 percent of their duty time performing common aircrew activities and in-flight air refueling and cruising activities (Table 2, Duties E and G), and 23 percent performing cargo and passenger handling activities (Table 2, Duty H). They perform an average of 148 tasks and are distinguished by the time they spend performing the following tasks:

- monitor boom positions prior to contact and after disconnect
- direct receiver aircraft into refueling position using pilot director lights
- compute weight and balance
- refuel receiver aircraft with boom refueling normal systems
- direct receiver aircraft during air refueling
- monitor radio communications
- perform preparation for contact checklist procedures for normal boom air refueling
- inform pilots of tanker refueling operation status
- perform post air refueling boom checklist procedures
- visually inspect cargo or passenger compartments
- perform EMCON option-2 air refueling procedures
- inform pilots of boom positions during receiver air refueling

Thirty-six percent of these individuals hold the 7-skill level while 34 percent have a 5-skill level and 25 percent the 3-skill level. Nineteen percent are in paygrade E-3, with an additional 47 percent in paygrades E-5 and E-6. The average time in the career field is 7 years with an average of 9 years total time in service. This job contains the highest number of members in their first enlistment (32 percent).

B. Combat Crew Training School (CCTS) Flight Instructor Job (ST033). These individuals account for 7 percent of the survey sample. The responsibilities of these respondents differ from those in the In-Flight Refueler/Boom Technician Job in that, while they perform many of the same general tasks, they spend more time on tasks related specifically to in-flight training and supervisory responsibilities. The job involves training AFSC 1A0X1 personnel in the basic in-flight refueling academics and flightline procedures for the KC-135. In the air, the CCTS Flight Instructor Job is carried out in a manner that allows for student and Flight Instructor interaction. Members with this job spend 27 percent of their duty time performing common aircrew activities (Table 2, Duty E), and 25 percent performing in-flight air refueling and cruising activities (Table 2, Duty G). They perform an average of 154 tasks which include:

- perform emission control (EMCON) option-1 air refueling procedures
- monitor boom positions prior to contact and after disconnect
- conduct initial in-flight qualification training
- monitor radio communications
- open or close crew entrance doors
- refuel receiver aircraft with boom refueling normal systems
- monitor aircraft takeoff procedures
- perform or practice tanker air refueling breakaway procedures
- monitor fuel panels
- direct receiver aircraft during air refueling
- monitor aircraft approaches
- participate in crew operation debriefings
- direct receiver aircraft into refueling position using pilot director lights
- evaluate progress of trainees
- conduct proficiency training
- conduct ground training, other than cargo loading training

Sixty-seven percent of these individuals hold the 7-skill level, while 30 percent have a 5-skill level. Seventy percent are in paygrade E-5, with an additional 26 percent in paygrades E-6/E-7. The average time in the career field is 9.6 years with an average of 12 years total time in service.

C. Boom Operator Instructor/Evaluator Job (ST045). These individuals account for 20 percent of the survey sample. The Boom Operator Instructor/Evaluators are assigned to either the KC-10 or the KC-135. Although the two refueling systems are different, the tasks performed are very similar. They spend 21 percent of their relative job time performing common aircrew activities (Table 2, Duty E) and 20 percent of their relative job time performing in-flight air refueling and cruising activities. In addition, 26 percent of their relative job time is dedicated to management and training activities (Table 2, Duties A and B). They are involved in evaluating trainee performance and various programs used across the career ladder. Seventy-nine percent of these individuals report supervising an average of nine members. These members perform an average of 207 tasks, which is a higher average than any other job within the survey sample. Typical tasks include:

- conduct proficiency training
- evaluate progress of trainees
- evaluate personnel for compliance with performance standards
- direct training functions
- supervise load teams
- conduct receiver category training
- conduct instructor upgrade training
- inspect personnel for compliance with military standards

- conduct ground training, other than cargo loading training
- evaluate personnel to determine training needs
- evaluate effectiveness of training programs, plans, or procedures
- monitor boom positions prior to contact and after disconnect
- refuel receiver aircraft with boom refueling normal systems
- compute weight and balance
- monitor radio communications
- direct receiver aircraft into refueling position using pilot director lights
- direct receiver aircraft during air refueling

Averaging 15.5 years TAFMS, 63 percent hold the 7 skill-level and 18 percent the 9-skill level. The predominant paygrade for these individuals is E-7 (25 percent).

D. Management Job (ST011). Comprising the most senior and experienced individuals in the career ladder, these 7 members account for 2 percent of the survey sample. These members perform management and general administrative tasks along with technical tasks. Twenty-three percent of their time is spent performing Management and Supervisory tasks (Table 2, Duty A), 15 percent of their time performing common aircrew activities (Table 2, Duty E), and 15 percent of their time performing cargo and passenger handling activities (Table 2, Duty H). These job incumbents perform an average of 203 tasks. The following tasks demonstrate the nature of work performed by these senior individuals:

- direct administrative functions
- develop or establish work methods or procedures
- determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace
- safeguard classified materials
- develop self-inspections self-assessment program checklists
- identify and report suspected security compromises
- develop inputs to mobility, contingency, disaster preparedness, or unit emergency or alert plans
- perform cargo tie-down procedures
- direct training functions
- inventory classified materials
- maintain administrative fields, such as correspondence files or classified files
- perform load planning for cargo or passenger missions, other than for deployments
- coordinate load requirements with support agencies
- establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)

Members with this job are senior, as they average 19 years total time in service, 15 years average time in the career field. Eighty-six percent of these individuals hold the 7-skill level, while 14 percent hold the CEM-skill level. Seventy-two percent of these members are in paygrades E-6 and E-7. There are no first-enlistment personnel assigned to this job.

Comparison of Current Jobs to Previous Survey Findings

The results of the specialty job analysis were compared to those of OSR AFPT 90-112-980, In-Flight Refueling, dated May 1994. After reviewing the jobs identified in 1994, all of the groups with substantial numbers of personnel could be matched to similar jobs in the current study (see Table 4). Even though some comparable groups from 1991 to 1997 reflect different percentages of the sample, this variation could generally be attributed to modifications in the task list or to the analysis approach used.

The following jobs (accounting for 9 percent of the survey sample) were identified in the 1994 career ladder structure, but did not have a direct match in the current study: Flight Mission Scheduler, Command Evaluator, Ground Scheduling, Flight Chief, In-Flight Refueling Program Manager, and Senior Program Manager Job. Tasks performed by personnel in these jobs, not identified in the current survey, are still being performed, but not at a level which resulted in these members forming distinct jobs. Differences in job names reflect how tasks were grouped. Aside from these minor variations involving a very small number of personnel, the vast majority of the current sample were found to be performing jobs identified in 1994, thus displaying a relative stable career ladder over time.

ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information may then be used to evaluate how well career ladder documents, such as the AFMAN 36-2108 *Specialty Description* and the STS, reflect what career ladder personnel are actually doing in the field and what is required of their members.

The comparison of DAFSCs has been divided into an Active Duty, National Guard, and Reserve subsections. The Active Duty subsection discusses members holding 3-, 5-, 7-, and 9/CEM-skill levels. The National Guard and Reserve subsections discuss members holding 5-, 7-, and 9/CEM-skill levels.

TABLE 4

SPECIALTY JOB COMPARISONS BETWEEN CURRENT AND 1994 SURVEYS

| CURRENT SURVEY (N=363) | PERCENT OF SAMPLE | 1994 SURVEY (N=549) | PERCENT OF SAMPLE |
|--|-------------------------|---|-------------------------|
| IN-FLIGHT REFUELING CLUSTER (N=354) | 98% | | |
| IN-FLIGHT REFUELER/BOOM TECHNICIAN JOB (N=196) | 54% | IN-FLIGHT REFUELER JOB (N=303) | 55% |
| BOOM OPERATOR INSTRUCTOR/EVALUATOR JOB (N=72) | 20% | BOOM OPERATOR/INSTRUCTOR/EVALUATOR CLUSTER (N=135) | 25% |
| - | | FLIGHT MISSION SCHEDULER JOB (N=7) | 1% |
| - | | COMMAND EVALUATOR JOB (N=8) | 1% |
| CCTS FLIGHT INSTRUCTOR JOB (N=27) | 7% | CCTS FLIGHT INSTRUCTOR JOB (N=9) | 2% |
| - | | GROUND SCHEDULING JOB (N=5) | 1% |
| - | | FLIGHT CHIEF JOB (N=6) | 1% |
| - | | IN-FLIGHT REFUELING PROGRAM MANAGER JOB (N=21) | 4% |
| - | | SENIOR PROGRAM MANAGER JOB (N=6) | 1% |
| MANAGEMENT JOB (N=7) | 2% | | |

- Indicates no match in report

The distribution of skill-level groups across the career ladder jobs is displayed in Tables 5 through 8. Tables 9 through 12 show the average time spent on duties by Active Duty, National Guard, and Reserve DAFSC groups. Progression in this career ladder is somewhat unique in that personnel across all skill levels perform common aircrew activities. Small increases in the time spent on supervisory or management duties can be seen as one progresses up to the 9-skill level. Three-skill level personnel spend the vast majority of their job time performing common aircrew activities, in-flight air refueling and cruising activities, and cargo and passenger handling activities. At the 7- and 9-skill levels and at the CEM-skill level, members still perform a substantial amount of technical tasks, although a shift toward supervisory and management functions is evident.

Active Duty Skill Level Descriptions

DAFSC 1A031. The 62 airmen in the 3-skill level group represent 17 percent of the survey sample. Seventy-nine percent of the 3-skill level members are in the In-Flight Refueler/Boom Technician Job and 2 percent are in the Boom Operator Instructor/Evaluator Job (see Table 5). They perform an average of 129 tasks. Performing a highly technical job, 97 percent of their relative duty time is devoted to technical duties such as performing common aircrew activities, performing preflight and postflight activities, performing in-flight air refueling and cruising activities, performing cargo and passenger handling activities, and performing mobility and contingency activities (see Table 9). Table 13 displays representative tasks performed by the highest percentages of these airmen.

DAFSC 1A051. The 86 airmen in the active duty 5-skill level group constitute 24 percent of the survey sample and perform an average of 143 tasks. Sixty-seven percent of these 5-skill level members are in the In-Flight Refueler/Boom Technician Job and 9 percent are in the CCTS Flight Instructor Job (see Table 6). Performing a highly technical job, 89 percent of their relative job time is devoted to duties covering common aircrew activities, preflight and postflight activities, In-Flight Air Refueling and Cruising Activities, cargo and passenger handling activities, and mobility and contingency activities (see Table 10). Table 14 displays representative tasks performed by the highest percentages of airmen. Table 15 displays those tasks that reflect differences between the Active Duty 3- and 5-skill level groups. A review of the tasks reveals that Active Duty 5-skill level airmen perform virtually the same technical tasks as do the 3-skill level members. However, a higher percentage of 3-skill level members perform these tasks. The 5-skill level members are primarily differentiated in that they perform some training functions.

DAFSC 1A071. The 109 NCOs in the active duty 7-skill level group constitute 30 percent of the survey sample (largest DAFSC group of the survey) and perform an average of 171 tasks. Thirty-six percent of these 7-skill level members are in the In-Flight Refueler/Boom Technician Job, 28 percent are in the Boom Operator Instructor/Evaluator Job, and 17 percent are in the CCTS Flight Instructor Job (see Table 7). Seventy-nine percent of their relative job time is

TABLE 5

DISTRIBUTION OF 3-SKILL LEVEL DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS
(PERCENT IN JOB)

| <u>SPECIALTY JOBS</u> | ACTIVE 1A031 (N=62) |
|---|---------------------------|
| A. IN-FLIGHT REFUELER/BOOM TECHNICIAN (N=196) | 79 |
| B. CCTS FLIGHT INSTRUCTOR (N=27) | - |
| C. BOOM OPERATOR INSTRUCTOR/EVALUATOR (N=72) | 2 |
| D. MANAGEMENT (N=7) | - |
| NOT GROUPED | 19 |

TABLE 6

DISTRIBUTION OF 5-SKILL LEVEL DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS
(PERCENT RESPONDING)

| <u>SPECIALTY JOBS</u> | <u>TOTAL</u> 1A051 (N=99) | <u>ACTIVE</u> 1A051 (N=86) | <u>ANG</u> 1A051 (N=5) | <u>AFRC</u> 1A051 (N=8) |
|---|---------------------------------|----------------------------------|------------------------------|-------------------------------|
| A. IN-FLIGHT REFUELER/BOOM TECHNICIAN (N=196) | 67 | 67 | 40 | 75 |
| B. CCTS FLIGHT INSTRUCTOR (N=27) | 8 | 9 | - | - |
| C. BOOM OPERATOR INSTRUCTOR/EVALUATOR (N=72) | 5 | 6 | - | - |
| D. MANAGEMENT JOB (N=7) | - | - | - | - |
| NOT GROUPED | 20 | 18 | 60 | 25 |

TABLE 7

DISTRIBUTION OF 7-SKILL LEVEL DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS
(PERCENT RESPONDING)

| <u>SPECIALTY JOBS</u> | <u>TOTAL</u> 1A071 (N=165) | <u>ACTIVE</u> 1A071 (N=109) | <u>ANG</u> 1A071 (N=36) | <u>AFRC</u> 1A071 (N=20) |
|---|----------------------------------|-----------------------------------|-------------------------------|--------------------------------|
| A. IN-FLIGHT REFUELER/BOOM TECHNICIAN (N=196) | 43 | 36 | 64 | 45 |
| B. CCTS FLIGHT INSTRUCTOR (N=27) | 11 | 17 | - | - |
| C. BOOM OPERATOR INSTRUCTOR/EVALUATOR (N=72) | 27 | 28 | 19 | 35 |
| D. MANAGEMENT JOB (N=7) | 4 | 5 | 3 | - |
| NOT GROUPED | 15 | 14 | 14 | 20 |

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 8

DISTRIBUTION OF 9/CEM SKILL LEVEL DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS
(PERCENT RESPONDING)

| <u>SPECIALTY JOBS</u> | TOTAL 1A091/1A000 (N=37) | ACTIVE 1A091/1A000 (N=18) | ANG 1A091/1A000 (N=8) | AFRC 1A091/1A000 (N=11) |
|---|--------------------------------|---------------------------------|-----------------------------|-------------------------------|
| A. IN-FLIGHT REFUELER/BOOM TECHNICIAN (N=196) | 27 | 17 | 50 | 27 |
| B. CCTS FLIGHT INSTRUCTOR (N=27) | 3 | 6 | - | - |
| C. BOOM OPERATOR INSTRUCTOR/EVALUATOR (N=72) | 57 | 50 | 50 | 73 |
| D. MANAGEMENT JOB (N=7) | 3 | 6 | - | - |
| NOT GROUPED | 10 | 21 | - | - |

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 9

AVERAGE PERCENT TIME SPENT ON DUTIES BY 3-SKILL LEVEL DAFSC GROUPS

| DUTIES | ACTIVE 1A031 (N=62) |
|---|---------------------------|
| A PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 1 |
| B PERFORMING TRAINING ACTIVITIES | - |
| C PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER SYSTEM ACTIVITIES | - |
| D PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | - |
| E PERFORMING COMMON AIRCREW ACTIVITIES | 30 |
| F PERFORMING PREFLIGHT AND POSTFLIGHT ACTIVITIES | 13 |
| G PERFORMING IN-FLIGHT AIR REFUELING AND CRUISING ACTIVITIES | 29 |
| H PERFORMING CARGO AND PASSENGER HANDLING ACTIVITIES | 23 |
| I PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES | 2 |

- Indicates less than 1 percent

NOTE: Columns may not add up to 100 percent due to rounding

TABLE 10

AVERAGE PERCENT TIME SPENT ON DUTIES BY 5-SKILL LEVEL DAFSC GROUPS

| DUTIES | TOTAL 1A051 (N=99) | ACTIVE 1A051 (N=86) | ANG 1A051 (N=5) | AFRC 1A051 (N=8) |
|---|--------------------------|---------------------------|-----------------------|------------------------|
| A PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 4 | 4 | - | 2 |
| B PERFORMING TRAINING ACTIVITIES | 5 | 5 | 1 | 1 |
| C PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER SYSTEM ACTIVITIES | 1 | 1 | - | - |
| D PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | - | - | - | - |
| E PERFORMING COMMON AIRCREW ACTIVITIES | 26 | 26 | 29 | 26 |
| F PERFORMING PREFLIGHT AND POSTFLIGHT ACTIVITIES | 11 | 11 | 16 | 10 |
| G PERFORMING IN-FLIGHT AIR REFUELING AND CRUISING ACTIVITIES | 26 | 26 | 34 | 28 |
| H PERFORMING CARGO AND PASSENGER HANDLING ACTIVITIES | 22 | 22 | 16 | 29 |
| I PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES | 4 | 4 | 4 | 3 |

- Indicates less than 1 percent

NOTE: Columns may not add up to 100 percent due to rounding

TABLE 11

AVERAGE PERCENT TIME SPENT ON DUTIES BY 7-SKILL LEVEL DAFSC GROUPS

| DUTIES | TOTAL 1A071 (N=165) | ACTIVE 1A071 (N=109) | ANG 1A071 (N=36) | AFRC 1A071 (N=20) |
|---|---------------------------|----------------------------|------------------------|-------------------------|
| A PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 9 | 11 | 5 | 7 |
| B PERFORMING TRAINING ACTIVITIES | 7 | 8 | 5 | 6 |
| C PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER SYSTEM ACTIVITIES | 2 | 2 | 2 | 1 |
| D PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | - | - | - | - |
| E PERFORMING COMMON AIRCREW ACTIVITIES | 24 | 24 | 27 | 23 |
| F PERFORMING PREFLIGHT AND POSTFLIGHT ACTIVITIES | 11 | 10 | 13 | 10 |
| G PERFORMING IN-FLIGHT AIR REFUELING AND CRUISING ACTIVITIES | 24 | 23 | 27 | 27 |
| H PERFORMING CARGO AND PASSENGER HANDLING ACTIVITIES | 18 | 18 | 17 | 23 |
| I PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES | 4 | 4 | 4 | 3 |

- Indicates less than 1 percent

NOTE: Columns may not add up to 100 percent due to rounding.

TABLE 12

AVERAGE PERCENT TIME SPENT ON DUTIES BY 9/CEM-SKILL LEVEL DAFSC GROUPS

| DUTIES | TOTAL 1A091/ 1A000 (N=37) | ACTIVE 1A091/ 1A000 (N=18) | ANG 1A091/ 1A000 (N=8) | AFRC 1A091/ 1A000 (N=11) |
|---|------------------------------------|-------------------------------------|---------------------------------|-----------------------------------|
| A PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 17 | 21 | 11 | 16 |
| B PERFORMING TRAINING ACTIVITIES | 9 | 9 | 9 | 10 |
| C PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER SYSTEM ACTIVITIES | 3 | 4 | 2 | 2 |
| D PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | 1 | 1 | - | 2 |
| E PERFORMING COMMON AIRCREW ACTIVITIES | 20 | 20 | 23 | 20 |
| F PERFORMING PREFLIGHT AND POSTFLIGHT ACTIVITIES | 9 | 7 | 11 | 9 |
| G PERFORMING IN-FLIGHT AIR REFUELING AND CRUISING ACTIVITIES | 20 | 18 | 23 | 19 |
| H PERFORMING CARGO AND PASSENGER HANDLING ACTIVITIES | 17 | 17 | 17 | 16 |
| I PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES | 4 | 3 | 4 | 6 |

- Indicates less than 1 percent

NOTE: Columns may not add up to 100 percent due to rounding

TABLE 13
REPRESENTATIVE TASKS PERFORMED BY
ACTIVE 1A031 PERSONNEL

| SELECTED TASKS | PERCENT MEMBERS PERFORMING (N=62) |
|---|--|
| G247 Perform post air refueling boom checklist procedures | 100 |
| E150 Instruct crew members or passengers on in-flight or ground emergency procedures | 100 |
| G246 Perform or practice tanker air refueling breakaway procedures | 100 |
| E164 Operate galley equipment | 100 |
| G221 Monitor boom position prior to contact and after disconnect | 98 |
| G225 Monitor radio communications | 98 |
| H264 Compute weight and balance | 98 |
| E151 Load crew gear on aircraft | 98 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 98 |
| G227 Operate air-conditioning or heating controls | 98 |
| E158 Open or close crew entrance doors | 98 |
| F203 Perform descent and before-landing procedures | 98 |
| H261 Check cargo restraints | 98 |
| H296 Secure cargo | 98 |
| H261 Check cargo restraints | 98 |
| H259 Brief load team personnel | 98 |
| E184 Secure equipment for flight operations | 97 |
| F190 Brief flight crews concerning air refueling mission activities | 97 |
| E152 Maintain currency of flight manuals, safety and operational supplements, or flight crew checklists | 97 |
| E181 Pick up and inspect flight launches or galley equipment, such as coffee jugs | 97 |
| G217 Direct receiver aircraft during air refueling | 95 |
| F198 Perform after-landing and parking procedures | 95 |
| F209 Position professional equipment at boom operator forward stations | 94 |
| E183 Review technical orders for abnormal, emergency ground, or emergency in-flight procedures | 90 |
| E153 Monitor air traffic control clearances | 87 |
| F205 Perform normal ground checklist procedures | 82 |

Average number of tasks performed = 129

TABLE 14
REPRESENTATIVE TASKS PERFORMED BY
ACTIVE 1A051 PERSONNEL

| SELECTED TASKS | PERCENT MEMBERS PERFORMING (N=86) |
|---|--|
| G221 Monitor boom positions prior to contact and after disconnect | 99 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 99 |
| E158 Open or close crew entrance doors | 99 |
| G216 Direct receiver aircraft during air refueling | 99 |
| E152 Maintain currency of flight manuals, safety and operational supplements, or flight crew checklists | 99 |
| H264 Compute weight and balance | 98 |
| E155 Monitor aircraft takeoff procedures | 98 |
| E154 Monitor aircraft approaches | 98 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 98 |
| F197 Operate doors or hatches during normal conditions | 98 |
| G247 Perform post air refueling boom checklist procedures | 98 |
| E164 Operate galley equipment | 98 |
| H271 Direct cargo or passenger loading or unloading | 98 |
| H271 Direct cargo or passenger loading or unloading | 98 |
| G258 Verbally direct receiver aircraft into refueling | 97 |
| H293 Supervise load teams | 92 |
| F209 Position professional equipment at boom operator | 92 |
| H274 Inspect cargo for air transport | 91 |
| H273 Ensure compliance with customs, agriculture, and immigration guidance | 90 |
| H294 Supervise passengers on missions | 90 |
| G219 Inform pilots of boom positions during receiver air refueling | 88 |
| H259 Verify suitability or compatibility of hazardous cargo | 87 |
| E147 Inspect personal equipment | 86 |
| E189 Visually inspect spare life support equipment | 85 |
| H269 Coordinate load requirements with support agencies | 84 |
| H270 Coordinate passenger requirements with support | 84 |

Average number of tasks performed = 143

TABLE 15

TASKS WHICH BEST DIFFERENTIATE BETWEEN
ACTIVE DUTY DAFSC 1A031 AND DAFSC 1A051 PERSONNEL
(PERCENT MEMBERS PERFORMING)

| SELECTED TASKS | DAFSC 1A031 (N=62) | DAFSC 1A051 (N=86) | DIFF |
|--|--------------------------|--------------------------|------|
| G238 Perform manual gear and flap extension checklist procedures | 98 | 62 | 36 |
| F206 Perform sextant preflight checks | 95 | 60 | 35 |
| G257 Take in-flight celestial observations | 95 | 62 | 33 |
| F213 Take ground preflight celestial observations | 89 | 56 | 33 |
| H267 Configure aircraft for floor-loaded cargo | 95 | 65 | 30 |
| E172 Perform alert start procedures | 68 | 38 | 30 |
| G236 Perform EMCON option-4 air refueling procedures | 81 | 55 | 26 |
| H289 Prepare cargo or passenger manifests | 74 | 50 | 24 |
| E171 Participate in premission weather briefings | 92 | 70 | 22 |
| F201 Perform alert checklists procedures | 61 | 40 | 21 |
| E183 Review technical orders for abnormal, emergency ground, or emergency in-flight procedures | 90 | 76 | 14 |
| B81 Conduct proficiency training | 6 | 57 | -51 |
| B78 Conduct ground training, other than cargo loading training | 6 | 56 | -50 |
| B77 Conduct cargo loading training | 5 | 53 | -48 |
| B99 Maintain training records or files | 3 | 44 | -41 |
| B104 Write training reports | 0 | 38 | -38 |
| B83 Conduct remedial training | 0 | 37 | -37 |
| B82 Conduct receiver category training | 2 | 38 | -36 |
| B79 Conduct initial in-flight qualification training | 2 | 37 | -35 |
| B96 Evaluate progress of trainees | 2 | 34 | -32 |
| B76 Conduct aircraft difference training | 3 | 34 | -31 |
| B101 Schedule personnel for training | 3 | 34 | -31 |

spent on common aircrew activities, preflight and postflight activities, In-Flight Air Refueling and Cruising Activities, cargo and passenger handling activities, and mobility and contingency activities (Table 11). An additional 21 percent of their time is spent performing management, administrative, and training duties (see Table 11). Table 16 displays representative tasks performed by the highest percentages of airmen. Table 17 displays those tasks that differentiate between the 5- and 7-skill level groups and also reflects the supervisory responsibilities incumbent to the 7-skill level population. Tasks performed by higher percentages of 5-skill level personnel are technical and operational in nature, whereas higher percentages of 7-skill level personnel perform the higher level supervisory and management functions.

DAFSC 1A091/1A000. The 18 senior NCOs in the 9-/CEM-skill level active duty group constitute 5 percent of the survey sample and perform an average of 189 tasks. Fifty percent of these 9-/CEM-skill level members are in the Boom Operator Instructor/Evaluator Job and 17 percent are in the In-Flight Refueler/Boom Technician Job (see Table 8). Table 12 shows that 30 percent of their relative job time is spent in the supervisory, management, and training duties (i.e., Duties A, and B). Thirty-eight percent of their relative job time is spent performing common aircrew activities and performing In-Flight Air Refueling and Cruising activities. Table 18 clearly shows that these senior NCOs perform very technical AFSC-specific tasks. Table 19 displays those tasks that clearly show the differences between the 7- and 9-/CEM-skill level groups. It also clearly reflects the upper-level management responsibilities' incumbent to the 9-/CEM-skill levels.

National Guard Skill Level Description

DAFSC 1A051. There are 5 members in the National Guard 5-skill level group, accounting for 1 percent of the survey population. Forty percent of these 5-skill level members are in the In-Flight Refueler/Boom Technician Job (see Table 6). These members are performing technical tasks during their duty time (Table 20), such as performing normal in-flight checklist procedures other than air refueling, computing weight and balance, refueling receiver aircraft with boom refueling normal systems, performing descent and before-landing procedures, and performing direct receiver aircraft into refueling position using pilot director lights. They average 113 tasks performed. The majority of tasks performed are from Duty G, E, F, and H. All of these tasks are indicative of the technical functions performed by in-flight refuelers.

DAFSC 1A071. There are 36 members comprising the National Guard 7-skill level group (10 percent of the survey sample). They perform an average of 156 tasks. These personnel are mostly found in the In-Flight Refueler/Boom Technician Job, 19 percent are in the Boom Operator Instructor/Evaluator Job, and 3 percent are in the Management Job (see Table 7). The work performed by these members is still technical in nature as members direct receiver aircraft into refueling position using pilot director lights, direct receiver aircraft during air refueling, open or close crew entrance doors, inform pilots of tanker refueling operation status, and perform post air refueling boom checklist procedures. Table 21 lists representative tasks

TABLE 16
REPRESENTATIVE TASKS PERFORMED BY
ACTIVE DUTY 1A071 PERSONNEL

| SELECTED TASKS | PERCENT MEMBERS PERFORMING (N=109) |
|---|---|
| G233 Perform emission control (EMCON) option-1 air refueling procedures | 98 |
| E151 Load crew gear on aircraft | 97 |
| F209 Position professional equipment at boom operator forward stations | 97 |
| E160 Operate aircraft lighting systems | 97 |
| H266 Conduct passenger briefings | 97 |
| G255 Refuel receiver aircraft with boom refueling tanker manual operations | 97 |
| G222 Monitor fuel panels | 96 |
| G220 Interpret and use radio silent signals | 96 |
| F194 Inventory prepositioned life support equipment | 95 |
| G251 Perform preparation for contact checklist procedures for tanker manual air refueling | 95 |
| H263 Compute cargo restraint requirements | 95 |
| E164 Operate galley equipment | 95 |
| G258 Verbally direct receiver aircraft into refueling position | 95 |
| H271 Direct cargo or passenger loading or unloading | 94 |
| H268 Configure aircraft for palletized cargo | 93 |
| E189 Visually inspect spare life support equipment | 93 |
| G229 Perform boom air refueling procedures to correct abnormal conditions | 92 |
| G242 Perform operational checks on boom air refueling systems | 92 |
| G277 Operate air-conditioning or heating controls | 91 |
| E147 Inspect personal equipment | 89 |
| G237 Perform in-flight safety observer duties | 88 |
| H294 Supervise passengers on missions | 86 |
| H274 Inspect cargo for air transport | 85 |
| H269 Coordinate load requirements with support agencies | 82 |
| H259 Verify suitability or compatibility of hazardous cargo | 79 |
| E171 Participate in permission weather briefings | 79 |
| F199 Perform aircraft housekeeping | 79 |

Average number of tasks performed = 171

TABLE 17

TASKS WHICH BEST DIFFERENTIATE BETWEEN
ACTIVE DUTY DAFSC 1A051 AND DAFSC 1A071 PERSONNEL
(PERCENT MEMBERS PERFORMING)

| SELECTED TASKS | DAFSC 1A051 (N=86) | DAFSC 1A071 (N=109) | DIFF |
|---|--------------------------|---------------------------|------|
| H265 Conduct hazardous cargo briefings | 83 | 72 | 11 |
| A42 Evaluate personnel for compliance with performance standards | 10 | 61 | -51 |
| A70 Write recommendations for awards or decorations | 5 | 49 | -44 |
| A9 Conduct supervisory performance feedback sessions | 6 | 48 | -42 |
| A8 Conduct standardization/evaluation checks | 7 | 48 | -41 |
| A13 Counsel subordinates concerning personal matters | 20 | 60 | -40 |
| A51 Inspect personnel for compliance with military standards | 20 | 59 | -39 |
| B93 Evaluate training methods or techniques of instructors | 13 | 51 | -38 |
| A68 Write performance reports or supervisory appraisals | 9 | 48 | -39 |
| A31 Establish performance standards for subordinates | 12 | 50 | -38 |
| A43 Evaluate personnel for promotion, demotion, reclassification, or special awards | 6 | 43 | -37 |
| A6 Conduct self-inspections or self-assessments | 16 | 52 | -36 |
| A50 Initiate actions required due to substandard performance of personnel | 14 | 46 | -32 |
| A52 Interpret policies, directives, or procedures for subordinates | 19 | 50 | -31 |
| A19 Develop self-inspection or self-assessment program checklists | 9 | 39 | -30 |
| A21 Develop or establish work methods or procedures | 19 | 49 | -30 |
| A62 Schedule personnel for temporary duty (TDY) | 10 | 40 | -30 |

TABLE 18
REPRESENTATIVE TASKS PERFORMED
BY ACTIVE DUTY AFSC 1A091/1A000 PERSONNEL
(N=18)

| SELECTED TASKS | PERCENT MEMBERS PERFORMING |
|---|----------------------------------|
| G234 Perform EMCON option-2 air refueling procedures | 100 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 100 |
| G225 Monitor radio communications | 100 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 100 |
| H264 Compute weight and balance | 100 |
| H271 Direct cargo or passenger loading or unloading | 100 |
| E158 Open or close crew entrance doors | 100 |
| E184 Secure equipment for flight operations | 100 |
| H259 Brief load team personnel | 100 |
| G258 Verbally direct receiver aircraft into refueling position | 100 |
| A1 Advise commander or staff on in-flight refueling career field issuers | 94 |
| E152 Maintain currency of flight manuals, safety and operational supplements, or flight crew checklists | 94 |
| G217 Direct receiver aircraft into refueling position using pilot director lights | 94 |
| G221 Monitor boom positions prior to contact and after disconnect | 94 |
| H263 Compute cargo restraint requirements | 94 |
| E169 Participate in general or specialized mission briefings, other than intelligence or weather briefings | 94 |
| A42 Evaluate personnel for compliance with performance standards | 89 |
| F194 Inventory prepositioned life support equipment | 89 |
| H260 Certify load plans | 89 |
| A55 Participate in general meetings, such as staff meetings, briefings, conferences, or workshop, other than conducting | 78 |
| B95 Evaluate effectiveness of training programs, plans, or procedures | 78 |
| A52 Interpret policies, directives, or procedures for subordinates | 78 |
| B86 Determine training requirements | 72 |
| C125 Review technical order changes | 67 |
| A13 Counsel subordinates concerning personal matters | 67 |
| A7 Conduct staff assistance visits, inspections, or audits | 44 |
| H273 Ensure compliance with customs, agriculture, and immigration guidance | |

Average number of tasks performed: 189

TABLE 19

TASKS WHICH BEST DIFFERENTIATE BETWEEN
ACTIVE DUTY DAFSC 1A071 AND DAFSC 1A091/1A000 PERSONNEL
(PERCENT MEMBERS PERFORMING)

| SELECTED TASKS | DAFSC 1A071 (N=109) | DAFSC 1A091/ 1A000 (N=18) | DIFF |
|---|---------------------------|------------------------------------|------|
| | | | |
| E185 Select maintenance brevity codes | 56 | 28 | 28 |
| F205 Perform normal ground checklist procedures | 96 | 72 | 24 |
| B99 Maintain training records or files | 46 | 22 | 24 |
| G239 Perform no-navigator procedures | 39 | 17 | 22 |
| I317 Operate portable radios, such as field radios, during contingency exercises or operations | 26 | 6 | 20 |
| F206 Perform sextant preflight checks | 64 | 44 | 20 |
| I320 Perform chemical warfare agent decontamination procedures | 47 | 28 | 19 |
| B82 Conduct receiver category training | 68 | 50 | 18 |
| I325 Prepare equipment for deployments | 28 | 11 | 17 |
| G244 Perform or practice in-flight emergency procedures, such as for fire or decompression | 89 | 72 | 17 |
| I323 Perform small arms qualifications | 89 | 72 | 17 |
| I298 Conduct mobility training | 17 | 0 | 17 |
| I309 Inspect mobility bags or kits | 44 | 28 | 16 |
| A1 Advise commander or staff on in-flight refueling career field issues | 41 | 94 | -53 |
| A56 Plan briefings, conferences or workshops | 28 | 78 | -50 |
| A33 Evaluate accident or incident reports | 8 | 56 | -48 |
| A26 Draft agenda for general meetings, such as staff meetings, briefings, conferences, or workshops | 28 | 72 | -44 |
| A35 Evaluate inspection report findings or inspection procedures | 7 | 50 | -43 |
| B94 Evaluate training requirements for instructors | 31 | 72 | -41 |
| A2 Assign personnel to work areas or duty positions | 26 | 67 | -41 |
| A71 Write replies to inspection reports | 5 | 44 | -39 |
| A67 Write job or position descriptions | 17 | 56 | -39 |
| A37 Evaluate job or position descriptions | 23 | 61 | -38 |
| A66 Write inspection reports | 6 | 44 | -38 |
| B95 Evaluate effectiveness of training programs, plans, or procedures | 40 | 78 | -38 |

TABLE 20
REPRESENTATIVE TASKS PERFORMED BY
ANG 1A051 PERSONNEL

| SELECTED TASKS | PERCENT MEMBERS PERFORMING (N=5) |
|--|---|
| G240 Perform normal in-flight checklist procedures, other than air refueling | 100 |
| H264 Compute weight and balance | 100 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 100 |
| F203 Perform descent and before-landing procedures | 100 |
| F198 Perform after-landing parking procedures | 100 |
| G217 Direct receiver aircraft into refueling position using pilot director lights | 100 |
| G221 Monitor boom positions prior to contact and after disconnect | 100 |
| E188 Visually inspect cargo or passenger compartments | 100 |
| G247 Perform post air refueling boom checklist procedures | 100 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 100 |
| F190 Brief flight crews concerning air refueling mission | 100 |
| E184 Secure equipment for flight operations | 100 |
| E169 Participate in general or specialized mission briefings, other than intelligence or weather briefings | 100 |
| G233 Perform emission control (EMCON) option-1 air refueling procedures | 100 |
| G251 Perform preparation for contact checklist procedures for tanker manual air refueling | 100 |
| F194 Inventory prepositioned life support equipment | 100 |
| E151 Load crew gear on aircraft | 100 |
| G246 Perform or practice tanker air refueling breakaway procedures | 100 |
| G258 Verbally direct receiver aircraft into refueling position | 100 |
| E153 Monitor air traffic control clearances | 80 |
| E168 Participate in crew operation debriefings | 80 |
| F205 Perform normal ground checklist procedures | 80 |
| F209 Position professional equipment at boom operator forward stations | 80 |
| E175 Perform flight crew information file (FCIF) reviews | 80 |

Average number of tasks performed = 113

TABLE 21
REPRESENTATIVE TASKS PERFORMED BY
ANG 1A071 PERSONNEL

| SELECTED TASKS | PERCENT MEMBERS PERFORMING (N=36) |
|---|--|
| G217 Direct receiver aircraft into refueling position using pilot director lights | 100 |
| G216 Direct receiver aircraft during air refueling | 100 |
| E158 Open or close crew entrance doors | 100 |
| G218 Inform pilots of tanker refueling operation status | 100 |
| G247 Perform post air refueling boom checklist procedures | 100 |
| F197 Operate doors or hatches during normal conditions | 100 |
| E164 Operate galley equipment | 100 |
| G234 Perform EMCON option-2 air refueling procedures | 100 |
| G246 Perform or practice tanker air refueling breakaway procedures | 100 |
| G221 Monitor boom positions prior to contact and after disconnect | 97 |
| F203 Perform descent and before landing procedures | 97 |
| F190 Brief flight crews concerning air refueling mission activities | 97 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 97 |
| F205 Perform normal ground checklist procedures | 97 |
| F191 Coordinate crew duties with other crew members | 97 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 97 |
| E168 Participate in crew operation debriefings | 97 |
| E188 Visually inspect cargo or passenger compartments | 97 |
| G219 Inform pilots of boom positions during receiver air refueling | 97 |
| E55 Monitor aircraft takeoff procedures | 97 |
| F209 Position professional equipment at boom operator forward stations | 97 |
| G223 Monitor flight instruments | 97 |
| G222 Monitor engine instruments | 97 |
| E150 Instruct crew members or passengers on in-flight or ground emergency procedures | 94 |
| E181 Pick up and inspect flight lunches or galley | 94 |
| E169 Participate in general or specialized mission briefing, other than intelligence or weather briefings | 94 |
| G227 Operate air conditioning or heating controls | 89 |

Average number of tasks performed = 156

performed by National Guard 7-skill level members. It clearly shows the work performed is still of the technical nature. Table 22 lists tasks which best differentiate National Guard 5- and 7-skill level groups. This table shows that 7-skill level members are differentiated from the 5-skill level members because of their increased supervisory responsibilities. However, tasks performed are still very technical in nature. It can be inferred from this table that the 7-skill level members are senior level in-flight refueler/boom technicians who are still performing the core work yet are making the transition to supervisory roles.

DAFSC 1A091/1A000. There are 8 members comprising the National Guard 9-/CEM-skill level group, accounting for 2 percent of the survey population. These personnel are mostly found in the In-Flight Refueler/Boom Technician Job and the Boom Operator Instructor/Evaluator Job (see Table 8). The work performed by these members is still technical in nature (see Table 23) but they are spending 22 percent of their time performing management, training, and administrative duties (see Table 12). Table 24 lists tasks which best differentiate National Guard 7- and 9-/CEM-skill level groups. This table reflects the upper-level management responsibilities' incumbent to the 9-/CEM-skill levels.

Reserve Skill Level Description

DAFSC 1A051. There are 8 members in the Reserve 5-skill level group, accounting for 2 percent of the survey population. Seventy-five percent of these 5-skill level members are in the In-Flight Refueler/Boom Technician Job (see Table 6). These members are performing technical tasks during their duty time (Table 25), such as performing preparation for contact checklist procedures for normal boom air refueling, directing receiver aircraft into refueling position using pilot director lights, computing weight and balance, directing cargo or passenger loading or unloading, performing EMCON option-2 air refueling procedures, and briefing load team personnel. They average 127 tasks performed. Table 10 shows that members are focusing their efforts on tasks primarily from Duties E, F, G, and H. All of these tasks are indicative of the technical functions performed by in-flight refuelers.

DAFSC 1A071. There are 20 members comprising the Reserve 7-skill level group (5 percent of the survey sample). They perform an average of 153 tasks. These personnel are principally assigned to the In-Flight Refueler/Boom Technician and Boom Operator Instructor/Evaluator jobs (see Table 7). These members are performing technical tasks as they monitor radio communications, perform post air refueling boom checklist procedures, perform EMCON option-2 air refueling procedures, secure cargo, position cargo in aircraft, perform cargo tie-down procedures, and direct cargo or passenger loading or unloading. Table 26 lists representative tasks performed by these personnel and shows that members are performing core career ladder tasks. Table 27 lists tasks which best differentiate between Reserve 5- and 7-skill level groups. This table reveals that 7-skill level members are differentiated from the 5-skill

TABLE 22

TASKS WHICH BEST DIFFERENTIATE BETWEEN
ANG DAFSC 1A051 AND DAFSC 1A071 PERSONNEL
(PERCENT MEMBERS PERFORMING)

| SELECTED TASKS | DAFSC 1A051 (N=5) | DAFSC 1A071 (N=36) | DIFF |
|---|-------------------------|--------------------------|------|
| I312 Load plan aircraft for deployments | 80 | 56 | 24 |
| C108 Destroy classified materials | 40 | 19 | 21 |
| H294 Supervise passengers on missions | 100 | 81 | 19 |
| G214 Coordinate multiple-receiver air refueling activities | 100 | 81 | 19 |
| H270 Coordinate passenger requirements with support | 80 | 61 | 19 |
| G228 Operate universal aerial refueling receptacle slipway installation (UARRSI) hydraulic shutoff valves | 20 | 6 | 14 |
| D138 Maintain documentation on items requiring periodic inspections | 20 | 6 | 14 |
| G250 Perform preparation for contact checklist procedures for normal drogue air refueling | 100 | 86 | 14 |
| F198 Perform after-landing and parking procedures | 100 | 86 | 14 |
| I316 Operate chemical warfare personal protective equipment during contingency exercises or operations | 60 | 47 | 13 |
| E178 Perform high-altitude procedures in altitude chamber | 0 | 69 | -69 |
| F211 Preflight spare parachutes or harnesses | 20 | 86 | -66 |
| E172 Perform alert start procedures | 20 | 72 | -52 |
| B77 Conduct cargo loading training | 0 | 50 | -50 |
| E185 Select maintenance brevity codes | 0 | 50 | -50 |
| B76 Conduct aircraft difference training | 0 | 50 | -50 |
| G215 Direct in-flight emergency evacuation procedures | 20 | 67 | -47 |
| B76 Conduct aircraft difference training | 0 | 50 | -50 |
| G215 Direct in-flight emergency evacuation procedures | 20 | 67 | -47 |
| F193 Install ground wires or locks | 20 | 67 | -47 |

TABLE 23
REPRESENTATIVE TASKS PERFORMED
BY ANG DAFSC 1A091/1A000 PERSONNEL
(N=8)

| SELECTED TASKS | PERCENT MEMBERS PERFORMING |
|--|----------------------------------|
| E141 Apply internal or external power to aircraft | 100 |
| E186 Troubleshoot aircraft malfunctions on ground or in flight | 100 |
| I312 Load plan aircraft for deployments | 100 |
| G238 Perform manual gear and flap extension checklist procedures | 100 |
| E189 Visually inspect spare life support equipment | 100 |
| H274 Inspect cargo for air transport | 100 |
| E151 Load crew gear on aircraft | 100 |
| E167 Participate in crew maintenance debriefings | 100 |
| F194 Inventory prepositioned life support equipment | 100 |
| H273 Ensure compliance with customs, agriculture, and immigration guidance | 100 |
| E159 Operate aerospace ground equipment (AGE) | 100 |
| H282 Perform load planning for cargo oar passenger missions, other than for deployments | 100 |
| E160 Operate aircraft lighting systems | 100 |
| E143 Assist maintenance personnel in identifying aircraft systems malfunctions | 100 |
| E143 Assist maintenance personnel in identifying aircraft systems malfunctions | 100 |
| G222 Monitor engine instruments | 100 |
| H292 Secure cargo | 100 |
| F190 Brief flight crews concerning air refueling mission activities | 100 |
| F203 Perform descent and before-landing procedures | 100 |
| G219 Inform pilots of boom positions during receiver air refueling | 100 |
| G247 Perform post air refueling boom checklist procedures | 100 |
| F192 Inspect or operate auxiliary power units | 88 |
| H261 Check cargo restraints | 88 |
| E175 Perform flight crew information file (FCIF) reviews | 88 |
| G242 Perform operational checks on boom air refueling systems | 88 |
| H295 Verify suitability or compatibility of hazardous cargo | 88 |
| G240 Perform normal in-flight checklist procedures, other than air refueling | 88 |

Average number of tasks performed: 194

TABLE 24

TASKS WHICH BEST DIFFERENTIATE BETWEEN
ANG DAFSC 1A071 AND DAFSC 1A091/1A000 PERSONNEL
(PERCENT MEMBERS PERFORMING)

| SELECTED TASKS | DAFSC 1A071 (N=36) | | DAFSC 1A091/ 1A000 (N=8) | | DIFF |
|--|-----------------------|--|--------------------------------|--|------|
| | | | | | |
| A57 Plan flight schedules | 36 | | 13 | | 23 |
| I309 Inspect mobility bags or kits | 47 | | 25 | | 22 |
| I297 Conduct mobility or contingency procedure orientations or briefings | 22 | | 0 | | 22 |
| E178 Perform high-altitude procedures in altitude chamber | 69 | | 50 | | 19 |
| I296 Brief deploying personnel | 56 | | 38 | | 18 |
| I306 Erect tents | 31 | | 13 | | 18 |
| I325 Prepare equipment for deployments | 42 | | 25 | | 17 |
| I332 Verify eligibility of tasked personnel for deployment | 14 | | 0 | | 14 |
| C115 Inventory classified materials | 14 | | 0 | | 14 |
| I326 Process classified materials or documents at deployed locations | 14 | | 0 | | 14 |
| E176 Perform flight tests for new equipment validation | 39 | | 25 | | 14 |
| A10 Conduct safety inspections of equipment or facilities | 14 | | 0 | | 14 |
| E171 Participate in premission weather briefings | 89 | | 75 | | 14 |
| <hr/> | | | | | |
| C116 Maintain administrative files, such as correspondence files or classified files | 17 | | 88 | | -71 |
| B86 Determine training requirements | 22 | | 88 | | -66 |
| A23 Direct administrative functions | 14 | | 75 | | -61 |
| B80 Conduct instructor upgrade training | 39 | | 100 | | -61 |
| A65 Supervise military personnel | 28 | | 88 | | -60 |
| B92 Evaluate personnel to determine training needs | 28 | | 88 | | -60 |
| A64 Supervise civilian personnel | 3 | | 63 | | -60 |
| A11 Conduct supervisory orientations for newly assigned personnel | 17 | | 75 | | -58 |
| A68 Write performance reports or supervisory appraisals | 17 | | 75 | | -58 |
| B96 Evaluate progress of trainees | 31 | | 88 | | -57 |
| B84 Conduct requalification training | 44 | | 100 | | -56 |
| B83 Conduct remedial training | 33 | | 88 | | -55 |

TABLE 25
REPRESENTATIVE TASKS PERFORMED BY
AFRC 1A051 PERSONNEL

| SELECTED TASKS | PERCENT MEMBERS PERFORMING (N=8) |
|---|---|
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 100 |
| G217 Direct receiver aircraft into refueling position using pilot director lights | 100 |
| H264 Compute weight and balance | 100 |
| H271 Direct cargo or passenger loading or unloading | 100 |
| G234 Perform EMCON option-2 air refueling procedures | 100 |
| H259 Brief load team personnel | 100 |
| G231 Perform centerline drogue air refueling procedures | 100 |
| E151 Load crew gear on aircraft | 100 |
| G242 Perform operational checks on boom air refueling systems | 100 |
| H268 Configure aircraft for palletized cargo | 100 |
| H274 Inspect cargo for air transport | 100 |
| H273 Ensure compliance with customs, agriculture, and immigration guidance | 100 |
| H294 Supervise passengers on missions | 88 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 88 |
| H293 Supervise load teams | 88 |
| G219 Inform pilots of boom positions during receiver air refueling | 88 |
| F205 Perform normal ground checklist procedures | 88 |
| E154 Monitor aircraft approaches | 88 |
| H275 Inspect loading system components | 88 |
| H295 Verify suitability or compatibility of hazardous cargo | 88 |
| H291 Review preload cargo or passenger manifests | 88 |
| E166 Order flight lunches | 88 |
| E153 Monitor air traffic control clearances | 88 |
| G214 Coordinate multiple-receiver air refueling activities | 88 |
| E150 Instruct crew members or passengers on in-flight or ground emergency procedures | 88 |
| H277 Manage passenger comfort items | 88 |
| E189 Visually inspect spare life support equipment | 88 |
| G218 Inform pilots of tanker refueling operation status | 75 |

Average number of tasks performed = 127

TABLE 26
REPRESENTATIVE TASKS PERFORMED BY
AFRC 1A071 PERSONNEL

| SELECTED TASKS | PERCENT MEMBERS PERFORMING (N=20) |
|---|--|
| G225 Monitor radio communications | 100 |
| G247 Perform post air refueling boom checklist procedures | 100 |
| G234 Perform EMCON option-2 air refueling procedures | 100 |
| H292 Secure cargo | 100 |
| H285 Position cargo in aircraft | 100 |
| H280 Perform cargo tie-down procedures | 100 |
| H271 Direct cargo or passenger loading or unloading | 100 |
| H288 Prepare aircraft for loading or unloading passengers | 100 |
| H274 Inspect cargo for air transport | 100 |
| G221 Monitor boom positions prior to contact and after disconnect | 95 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 95 |
| G217 Direct receiver aircraft into refueling position using pilot director lights | 95 |
| H264 Compute weight and balance | 95 |
| G219 Inform pilots of boom positions during receiver air refueling | 95 |
| G216 Direct receiver aircraft during air refueling | 95 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 95 |
| G218 Inform pilots of tanker refueling operation status | 95 |
| G237 Perform in-flight safety observer duties | 95 |
| G220 Interpret and use radio silent signals | 95 |
| H261 Check cargo restraints | 95 |
| E158 Open or close crew entrance doors | 95 |
| H259 Brief load team personnel | 95 |
| H287 Position loaders or elevators | 90 |
| H293 Supervise load teams | 85 |
| F209 Position professional equipment at boom operator forward stations | 85 |
| F205 Perform normal ground checklist procedures | 85 |
| H294 Supervise passengers on missions | 75 |
| G214 Coordinate multiple-receiver air refueling activities with appropriate receivers | 75 |

Average number of tasks performed = 153

TABLE 27

TASKS WHICH BEST DIFFERENTIATE BETWEEN
AFRC DAFSC 1A051 AND DAFSC 1A071 PERSONNEL
(PERCENT MEMBERS PERFORMING)

| SELECTED TASKS | DAFSC 1A051 (N=8) | DAFSC 1A071 (N=20) | DIFF |
|--|-------------------------|--------------------------|------|
| G253 Perform wing pod air refueling procedures | 88 | 45 | 43 |
| F199 Perform aircraft housekeeping | 100 | 65 | 35 |
| E181 Pick up and inspect flight lunches or galley equipment, such as coffee jugs | 100 | 65 | 35 |
| F208 Perform or practice ground emergency procedures | 100 | 70 | 30 |
| H278 Marshal motorized vehicles inside aircraft | 100 | 75 | 25 |
| E180 Perform or practice emergency aircraft egress procedures | 100 | 75 | 25 |
| E175 Perform flight crew information file (FCIF) reviews | 100 | 75 | 25 |
| C108 Destroy classified materials | 25 | 0 | 25 |
| H281 Perform disinsection duties | 100 | 75 | 25 |
| H262 Collect and review passenger critique guides | 50 | 30 | 20 |
| I331 Transport mobility or contingency equipment to or from deployed locations | 50 | 30 | 20 |
| G245 Perform or practice in-flight procedures to correct abnormal conditions | 100 | 80 | 20 |
| G235 Perform EMCON option-3 air refueling procedures | 75 | 55 | 20 |
| B83 Conduct remedial training | 0 | 55 | -55 |
| B80 Conduct instructor upgrade training | 0 | 50 | -50 |
| B77 Conduct cargo loading training | 25 | 70 | -45 |
| B82 Conduct receiver category training | 0 | 45 | -45 |
| F193 Install ground wires or locks | 25 | 70 | -45 |
| A22 Develop or establish work schedules, other than flight schedules | 0 | 45 | -45 |
| F201 Perform alert checklist procedures | 13 | 55 | -42 |
| F200 Perform aircraft servicing | 38 | 80 | -42 |
| E149 Install or remove aircraft wheel chocks | 25 | 65 | -40 |
| B84 Conduct requalification training | 0 | 40 | -40 |
| B85 Conduct training conferences, briefings, or debriefings | 0 | 40 | -40 |
| B86 Determine training requirements | 0 | 40 | -40 |
| B96 Evaluate progress of trainees | 0 | 40 | -40 |

level members due to their performance of training tasks. This table infers that Reserve 7-skill level members are senior level in-flight refueler/boom technicians performing technical tasks, but transitioning into managerial roles.

DAFSC 1A091/1A000. There are 11 members comprising the Reserve 9-/CEM-skill level group, accounting for 3 percent of the survey population. These personnel are mostly found in the Boom Operator Instructor/Evaluator and In-Flight Refueler/Boom Technician jobs (see Table 8). The work performed by these members is still technical in nature (see Table 28), but they are spending 29 percent of their time performing management, training, and administrative duties (see Table 12). Table 29 lists tasks which best differentiate Reserve 7- and 9-/CEM-skill level groups. This table reflects the upper-level management responsibilities incumbent to the 9-/CEM-skill levels.

Summary

The data show that all three component groups generally perform the same tasks and duties. The jobs performed by 3- and 5-skill level personnel are very technical in nature. Members of all three component groups are mostly found in the In-Flight Refueler/Boom Technician Job, which epitomizes the core job of the career field. Active Duty members move from the In-Flight Refueler/Boom Technician Job into managerial and training roles as they acquire the 7-skill level. Air National Guard and Air Force Reserve 7- and 9-/CEM-skill level members spend a much higher percentage of their time performing technical tasks versus supervisory tasks than their Active Duty counterparts.

TRAINING ANALYSIS

One of the many sources of information that can be used to assist in the development of a training program relevant to the needs of personnel in their first enlistment is the OSR. Factors which may be used in evaluating training include the overall description of the jobs being performed by first-enlistment personnel and their overall distribution across career ladder jobs, percentages of first-job (1-24 months TAFMS) or first-enlistment (1-48 months TAFMS) members performing specific tasks, or using certain equipment or tools, as well as TE and TD ratings (previously explained in the **SURVEY METHODOLOGY** section).

First-Enlistment Personnel

In this study, there are 69 members in their first enlistment (1-48 months TAFMS), representing 19 percent of the total survey sample. The activities performed by these personnel are highly technical in nature, accounting for approximately 97 percent of their relative duty time (see Table 30). Reviewing Table 30, it is clearly evident that first-enlistment personnel are

TABLE 28
REPRESENTATIVE TASKS PERFORMED
BY AFRC DAFSC 1A091/1A000 PERSONNEL
(N=11)

| SELECTED TASKS | PERCENT MEMBERS PERFORMING |
|--|----------------------------------|
| G254 Refuel receiver aircraft with boom refueling normal systems | 100 |
| G225 Monitor radio communications | 100 |
| G221 Monitor boom positions prior to contact and after disconnect | 100 |
| E189 Visually inspect spare life support equipment | 100 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 100 |
| E154 Monitor aircraft approaches | 100 |
| G219 Inform pilots of boom positions during receiver air refueling | 100 |
| E155 Monitor aircraft takeoff procedures | 100 |
| E153 Monitor air traffic control clearances | 100 |
| E184 Secure equipment for flight operations | 100 |
| G216 Direct receiver aircraft during air refueling | 100 |
| E188 Visually inspect cargo or passenger compartments | 100 |
| E156 Monitor aircraft taxi procedures | 100 |
| G247 Perform post air refueling boom checklist procedures | 100 |
| G217 Direct receiver aircraft into refueling position using pilot director lights | 100 |
| E152 Maintain currency of flight manuals, safety and operational supplements, or flight crew checklists | 100 |
| H293 Supervise load teams | 100 |
| F203 Perform descent and before-landing procedures | 100 |
| B81 Conduct proficiency training | 100 |
| G250 Perform preparation for contact checklist procedures for normal drogue air refueling | 100 |
| B77 Conduct cargo loading training | 100 |
| G256 Refuel receiver aircraft with drogues | 100 |
| B80 Conduct instructor upgrade training | 100 |
| A55 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting | 91 |
| A8 Conduct standardization/evaluation checks | 91 |
| B79 Conduct initial in-flight qualification training | 82 |
| G237 Perform in-flight safety observer duties | 82 |
| H275 Inspect loading system components | 81 |
| A65 Supervise military personnel | 73 |

Average number of tasks performed: 211

TABLE 29

TASKS WHICH BEST DIFFERENTIATE BETWEEN
AFRC DAFSC 1A071 AND DAFSC 1A091/1A000 PERSONNEL
(PERCENT MEMBERS PERFORMING)

| SELECTED TASKS | DAFSC 1A071 (N=20) | DAFSC 1A091/ 1A000 (N=11) | DIFF |
|--|--------------------------|------------------------------------|------|
| E186 Troubleshoot aircraft malfunctions on ground or in flight | 65 | 45 | 20 |
| I326 Process classified materials or documents at deployed locations | 15 | 0 | 15 |
| H267 configure aircraft for floor -loaded cargo | 60 | 45 | 15 |
| G237 Perform in-flight safety observer duties | 95 | 82 | 13 |
| H275 Inspect loading system components | 98 | 82 | 13 |
| C122 Participate in time compliance technical order (TCTO) meetings | 10 | 0 | 10 |
| I333 Verify personnel possess passports for mobility requirements | 10 | 73 | -63 |
| E176 Perform flight tests for new equipment validation | 10 | 73 | -63 |
| B73 Assign formal course instructors, unit instructors, or unit evaluators | 10 | 73 | -63 |
| A1 Advise commander or staff on in-flight refueling career field issues | 5 | 64 | -59 |
| E177 Perform flight tests for new flight procedures | 5 | 64 | -59 |
| A42 Evaluate personnel to determine training needs | 35 | 91 | -56 |
| B76 Conduct aircraft difference training | 35 | 91 | -56 |
| B92 Evaluate personnel to determine training needs | 35 | 91 | -56 |
| A8 Conduct standardization/evaluation checklist | 35 | 91 | -56 |
| I332 Verify eligibility of tasked personnel for deployment | 10 | 64 | -54 |
| A51 Inspect personnel for compliance with military standards | 20 | 73 | -53 |
| B96 Evaluate progress of trainees | 40 | 91 | -51 |

TABLE 30
RELATIVE PERCENT TIME SPENT ON DUTIES
BY FIRST-ENLISTMENT PERSONNEL

| DUTIES | PERCENT TIME SPENT |
|--|--------------------------|
| A PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES | 1 |
| B PERFORMING TRAINING ACTIVITIES | 1 |
| C PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL ORDER SYSTEM ACTIVITIES | * |
| D PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES | * |
| E PERFORMING COMMON AIRCREW ACTIVITIES | 30 |
| F PERFORMING PREFLIGHT AND POSTFLIGHT ACTIVITIES | 12 |
| G PERFORMING IN-FLIGHT AIR REFUELING AND CRUISING ACTIVITIES | 30 |
| H PERFORMING CARGO AND PASSENGER HANDLING ACTIVITIES | 22 |
| I PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES | 3 |

* Less than 1 percent

NOTE: Columns may not add up to 100 percent due to rounding

spending most of their time performing tasks under Duty E (Performing Common Aircrew Activities) and Duty G (Performing In-Flight Air Refueling and Cruising Activities). Distribution of first-enlistment personnel across the career ladder jobs is displayed in Figure 2, which shows that the largest percentage of first-enlistment airmen work in the In-Flight Refueler/Boom Technician Job (80 percent). Table 31 lists representative tasks performed by these members.

Training Emphasis (TE) and Task Difficulty (TD) Data

TE and TD data are secondary factors that can assist technical school personnel in deciding which tasks should be emphasized in entry-level training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks in the JI considered important for first-enlistment training (TE) (see Table 32 for the top-rated tasks) along with a measure of the difficulty (TD) of the JI tasks (see top rated tasks presented in Table 33). A total of 80 tasks were rated high in TE, having a rating of over 5.16. Some of the tasks rated highest in TE are technical tasks which include: compute weight and balance, secure cargo, refuel receiver aircraft with boom refueling normal systems, monitor boom positions prior to contact and after disconnect, direct receiver aircraft into refueling position using pilot director lights, direct receiver aircraft during air refueling, and perform or practice tanker air refueling breakaway procedures. Although these tasks are rated high in TE and viewed as necessary for training of first-enlistment personnel, many of these tasks are for the most part not viewed as difficult to learn. Those tasks receiving a high TD rating were not technical in nature and involved drafting budget requirements, evaluating budget requirements, drafting inputs for status for resources and training system programs, developing formal course curricula, plans of instruction, or STSs, determining or establishing logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace, and planning deployments of equipment or personnel. When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

To assist technical school personnel, AFOMS has developed a computer program that incorporates these secondary factors and the percentage of first-enlistment personnel performing each task to produce an Automated Training Indicator (ATI) for each task. These indicators correspond to training decisions listed and defined in the Training Decision Logic Table found in Attachment 2, AETCI 36-2601, Occupational Analysis Program, and allows course personnel to quickly focus their attention on those tasks which are most likely to qualify for initial resident course consideration.

CAREER LADDER PROGRESSION FIRST-ENLISTMENT JOBS

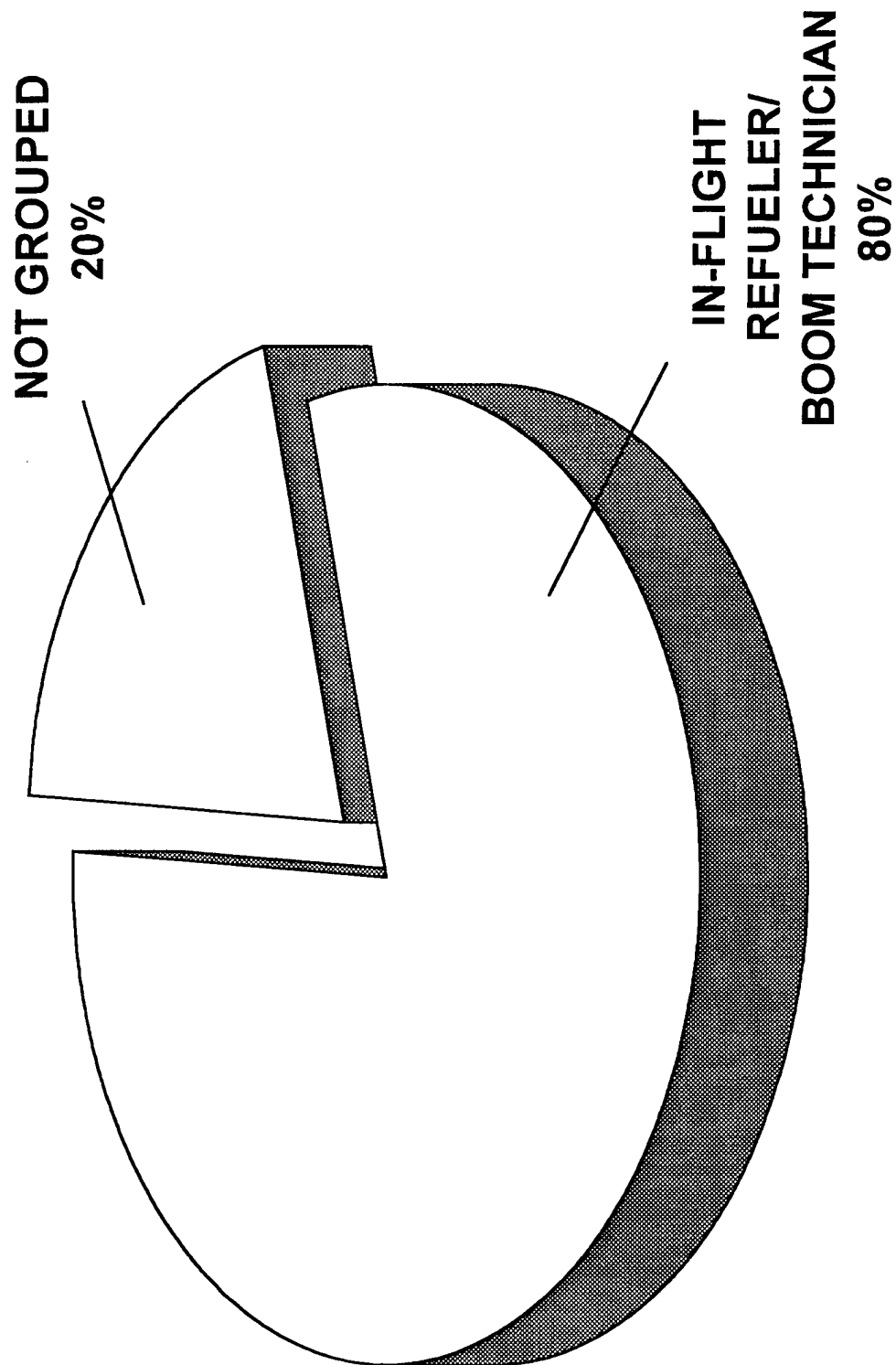


FIGURE 2

TABLE 31

REPRESENTATIVE TASKS PERFORMED BY
FIRST-ENLISTMENT PERSONNEL

| SELECTED TASKS | PERCENT MEMBERS PERFORMING (N=69) |
|--|--|
| G247 Perform post air refueling boom checklist procedures | 100 |
| E150 Instruct crew members or passengers on in-flight or ground emergency procedures | 100 |
| G221 Monitor boom positions prior to contact and after disconnect | 99 |
| H264 Compute weight and balance | 99 |
| G225 Monitor radio communications | 99 |
| G227 Operate air-conditioning or heating controls | 99 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 99 |
| G233 Perform emission control (EMCON) option-1 air refueling procedures | 99 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 97 |
| G251 Perform preparation for contact checklist procedures for tanker manual air refueling | 97 |
| G255 Refuel receiver aircraft with boom refueling tanker manual operations | 97 |
| G224 Monitor fuel panels | 97 |
| F190 Brief flight crews concerning air refueling mission activities | 97 |
| E152 Maintain currency of flight manuals, safety and operational supplements, or flight crew checklists | 97 |
| E154 Monitor aircraft approaches | 97 |
| G217 Direct receiver aircraft into refueling position using pilot director lights | 96 |
| G216 Direct receiver aircraft during air refueling | 96 |
| E184 Secure equipment for flight operations | 96 |
| H274 Inspect cargo for air transport | 96 |
| G240 Perform normal in-flight checklist procedures, other than air refueling | 96 |
| F169 Participate in general or specialized mission briefings, other than intelligence or weather briefings | 94 |
| G222 Monitor engine instruments | 94 |
| E167 Participate in crew maintenance debriefings | 94 |
| E155 Monitor aircraft takeoff procedures | 91 |
| E155 Monitor aircraft takeoff procedures | 91 |

Average number of tasks performed = 129

TABLE 32

TASKS RATED HIGHEST IN TRAINING EMPHASIS RATINGS

| TASKS | | TNG EMP* | % MBRs PERFORMING | | TASK DIFF** |
|-------|--|-------------|----------------------|----------------------|----------------|
| | | | 1ST JOB (N=44) | 1ST ENL (N=69) | |
| H264 | Compute weight and balance | 7.79 | 98 | 99 | 5.41 |
| H292 | Secure cargo | 7.62 | 98 | 97 | 5.07 |
| G254 | Refuel receiver aircraft with boom refueling normal systems | 7.57 | 95 | 97 | 5.18 |
| G221 | Monitor boom positions prior to contact and after disconnect | 7.52 | 98 | 99 | 4.46 |
| G217 | Direct receiver aircraft into refueling position using pilot director lights | 7.40 | 95 | 96 | 4.77 |
| G216 | Direct receiver aircraft during air refueling | 7.36 | 98 | 96 | 5.28 |
| G246 | Perform or practice tanker air refueling breakaway procedures | 7.29 | 100 | 100 | 4.65 |
| G230 | Perform boom system emergency operations | 7.14 | 75 | 74 | 5.49 |
| H261 | Check cargo restraints | 7.14 | 98 | 99 | 5.45 |
| G229 | Perform boom air refueling procedures to correct abnormal conditions | 7.14 | 84 | 84 | 5.47 |
| H285 | Position cargo in aircraft | 7.14 | 93 | 93 | 5.46 |
| G249 | Perform preparation for contact checklist procedures for normal boom air refueling | 7.10 | 98 | 99 | 4.54 |
| H266 | Conduct passenger briefings | 7.02 | 95 | 96 | 4.63 |
| H271 | Direct cargo or passenger loading or unloading | 6.88 | 98 | 97 | 4.96 |
| F197 | Operate doors or hatches during normal conditions | 6.83 | 95 | 97 | 3.74 |
| E150 | Instruct crew members or passengers on in-flight or ground emergency procedures | 6.83 | 100 | 100 | 4.33 |
| G220 | Interpret and use radio silent signals | 6.79 | 95 | 91 | 4.93 |
| G247 | Perform post air refueling boom checklist procedures | 6.76 | 100 | 100 | 4.06 |
| G255 | Refuel receiver aircraft with boom refueling tanker manual operations | 6.76 | 95 | 97 | 5.19 |

* TE MEAN = 2.88, SD = 2.28

** TD MEAN = 5.00; SD = 1.00

TABLE 33

TASKS RATED HIGHEST IN TASK DIFFICULTY RATINGS

| | TASK DIFF* | PERCENT MEMBERS PERFORMING | | | | | | | | TNG EMP |
|-----|---|-------------------------------|----------------------|---|----------------|----|----------------|--|----------------|------------|
| | | 1ST JOB (N=44) | 1ST ENL (N=69) | | DAFSC 1A031 | | DAFSC 1A051 | | DAFSC 1A071 | |
| | | | | | | | | | | |
| A25 | Draft budget requirements | 0 | 1 | 0 | 0 | 4 | 6 | | .36 | |
| A34 | Evaluate budget requirements | 0 | 0 | 0 | 0 | 1 | 7 | | .36 | |
| A35 | Evaluate inspection report findings or inspection procedures | 0 | 1 | 3 | 2 | 2 | 7 | | .21 | |
| A27 | Draft inputs for status of resources and training system (SORTS) programs | 0 | 1 | 2 | 2 | 2 | 5 | | .33 | |
| A54 | Maintain or update contingency plans, mobility plans, or base support plans | 0 | 1 | 2 | 1 | 1 | 7 | | .21 | |
| B87 | Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs) | 0 | 0 | 2 | 4 | 7 | | | .57 | |
| A14 | Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace | 0 | 3 | 3 | 7 | 25 | | | 1.21 | |
| A60 | Plan deployments of equipment or personnel | 0 | 4 | 3 | 9 | 22 | | | .57 | |
| A18 | Develop resource protection programs | 0 | 0 | 2 | 3 | 6 | | | .71 | |
| A43 | Evaluate personnel for promotion, demotion, reclassification, or special awards | 0 | 0 | 2 | 5 | 35 | | | 1.14 | |
| A41 | Evaluate new system developments, such as boom, drogue, or receiver equipment | 0 | 1 | 2 | 5 | 16 | | | .93 | |
| A33 | Evaluate accident or incident reports | 0 | 0 | 0 | 2 | 6 | | | .48 | |
| A12 | Coordinate host-tenant or interservice agreements with appropriate agencies | 0 | 0 | 0 | 3 | 10 | | | .38 | |
| A40 | Evaluate mobility, contingency, disaster preparedness, or unit emergency or alternate plans | 0 | 1 | 2 | 2 | 13 | | | .38 | |
| A53 | Investigate accidents or incidents | 0 | 0 | 0 | 1 | 5 | | | .57 | |
| A36 | Evaluate job hazards or compliance with Air Force Occupational Safety and Health (AFOSH) program | 0 | 0 | 2 | 4 | 12 | | | .64 | |

* TD MEAN = 5.00; SD = 1.00

** TE MEAN = 2.88, SD = 2.28

Various lists of tasks, accompanied by TE and TD ratings, and where appropriate, ATI information, are contained in the TRAINING EXTRACT package and should be reviewed in detail by technical school personnel. (For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the SURVEY METHODOLOGY section of this report.)

Specialty Training Standard (STS)

A comprehensive review of STS 1A0X1, dated June 1997, compared STS items to survey data (based on the previously mentioned assistance from SMEs in matching JI tasks to STS elements). STS paragraphs containing general knowledge information, mandatory entries, subject-matter-knowledge-only requirements, or basic supervisory responsibilities are not examined. Task knowledge and performance elements of the STS were compared against the standard set forth in AETCI 36-2601 and AFI 36-2623 (i.e., include tasks performed or knowledge required by 20 percent or more of the personnel in a skill level (criterion group) of the AFS).

Normally, for an item to be included on the STS, it must have tasks matched which are performed by at least 20 percent of the first-job or first-enlistment, 5-, or 7-skill level members. Using this standard, most paragraphs of the STS were supported. Table 34 shows example STS elements that have matched inventory tasks with low percent members performing and moderate to low TE ratings. These items are recommended for consideration by SMEs for possible deletion from the STS based on the data. Training personnel should carefully review all areas of the STS to determine which areas are suitable for deletion.

Tasks not referenced to any element of the STS are listed at the end of the STS computer listing. These tasks were reviewed to determine if there were any tasks concentrated around any particular function or job. There were 7 tasks with more than 20 percent members performing not matched to the STS elements (see Table 35). Training personnel and SMEs should review these unreferenced tasks to determine if inclusion in the STS is justified.

JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators of various groups can give career ladder managers a better understanding of some of the factors which may affect the job performance of airmen in the career ladder. Questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet to provide indications of job satisfaction.

Table 36 presents job satisfaction data for AFSC 1A0X1 TAFMS groups together with TAFMS data for a comparative sample of aircrew career ladders surveyed in 1995. These data can give a relative measure of how the job satisfaction of AFSC 1A0X1 personnel compares with

TABLE 34

EXAMPLE OF STS ELEMENTS NOT SUPPORTED BY OSR DATA
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

| | | % MEMBERS PERFORMING | | | | | |
|--|---|----------------------|--------------|----------------------|----------------------|--------------------------|---------------------------|
| STS | 3-LVL COURSE PROF CODE | TNG EMP* | TSK DIF** | 1ST JOB (N=44) | 1ST ENL (N=69) | DAFSC 1A051 (N=99) | DAFSC 1A071 (N=165) |
| 9.e. Establish electrical power | | | | | | | |
| 3c | | | | | | | |
| D130 | Evaluate serviceability of equipment, tools, parts, or supplies | 1.26 | 4.58 | 11 | 7 | 14 | 18 |
| D131 | Identify and report equipment or supply problems | .74 | 4.57 | 16 | 13 | 14 | 21 |
| F205 | Perform normal ground checklist procedures | 5.60 | 4.37 | 82 | 81 | 91 | 95 |
| 9.g. Perform Comm equipment check | | | | | | | |
| 3b | | | | | | | |
| D130 | Evaluate serviceability of equipment, tools, parts, or supplies | 1.26 | 4.58 | 11 | 7 | 14 | 18 |
| D131 | Identify and report equipment or supply problems | .75 | 4.57 | 16 | 13 | 14 | 21 |
| F205 | Perform normal ground checklist procedures | 5.60 | 4.37 | 82 | 81 | 91 | 95 |
| 9.i. Perform Ops check of oxygen system | | | | | | | |
| 3b | | | | | | | |
| D130 | Evaluate serviceability of equipment, tools, parts, or supplies | 1.26 | 4.58 | 11 | 7 | 14 | 18 |
| D131 | Identify and report equipment or supply problems | .75 | 4.57 | 16 | 13 | 14 | 21 |
| F205 | Perform normal ground checklist procedures | 5.60 | 4.37 | 82 | 81 | 91 | 95 |
| 9.j. Inspect oxygen equipment | | | | | | | |
| 3b | | | | | | | |
| D130 | Evaluate serviceability of equipment, tools, parts, or supplies | 1.26 | 4.58 | 11 | 7 | 14 | 18 |
| D131 | Identify and report equipment or supply problems | .75 | 4.57 | 16 | 13 | 14 | 21 |
| F205 | Perform normal ground checklist procedures | 5.60 | 4.37 | 82 | 81 | 91 | 95 |
| 9.l. Operate lighting systems | | | | | | | |
| 3c | | | | | | | |
| D130 | Evaluate serviceability of equipment, tools, parts, or supplies | 1.26 | 4.58 | 11 | 7 | 14 | 18 |
| D131 | Identify and report equipment or supply problems | .74 | 4.57 | 16 | 13 | 14 | 21 |
| 10.a.(2). Air refueling hydraulic system | | | | | | | |
| A | | | | | | | |
| D130 | Evaluate serviceability of equipment, tools, parts, or supplies | 1.26 | 4.58 | 11 | 7 | 14 | 18 |
| D131 | Identify and report equipment or supply problems | .75 | 4.57 | 16 | 13 | 14 | 21 |

* TE MEAN = 2.88; S.D. = 2.28 (High TE = >5.16)

** TD MEAN = 5.00; S.D. = 1.00

TABLE 35

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE GROUP MEMBERS
AND NOT REFERENCED TO THE STS

| TASKS | TNG EMP* | PERCENT MEMBERS PERFORMING | | | TASK DIFF** |
|-------|-------------|-------------------------------|--------------------------|---------------------------|----------------|
| | | 1ST ENL (N=69) | DAFSC 1A051 (N=86) | DAFSC 1A071 (N=109) | |
| | | | | | |
| E141 | 5.74 | 87 | 85 | 93 | 4.53 |
| E142 | 6.02 | 83 | 85 | 81 | 5.58 |
| G214 | 5.31 | 71 | 79 | 79 | 5.27 |
| G234 | 6.50 | 99 | 96 | 98 | 4.32 |
| G235 | 5.52 | 96 | 81 | 76 | 4.75 |
| G236 | 5.19 | 80 | 54 | 61 | 5.19 |
| G255 | 6.76 | 97 | 96 | 97 | 5.19 |

* TE MEAN = 2.88; S.D. = 2.28 (High TE = >5.16)

** TD MEAN = 5.00; S.D. = 1.00

TABLE 36

JOB SATISFACTION INDICATORS FOR AFSC 1A0X1 TAFMS GROUPS
IN CURRENT STUDY TO A COMPARATIVE SAMPLE
(PERCENT MEMBERS RESPONDING)

| | 1-48 MONTHS TAFMS | | | 49-96 MONTHS TAFMS | | | 97+ MONTHS TAFMS | | |
|--|-------------------------|--------------------------|--|-------------------------|--------------------------|--|--------------------------|--------------------------|--|
| | AFSC 1A0X1 (N=69) | COMP SAMPLE (N=45) | | AFSC 1A0X1 (N=32) | COMP SAMPLE (N=23) | | AFSC 1A0X1 (N=174) | COMP SAMPLE (N=50) | |
| <u>EXPRESSED JOB INTEREST:</u> | | | | | | | | | |
| INTERESTING | 93 | 69 | | 91 | 70 | | 82 | 78 | |
| SO-SO | 7 | 18 | | 6 | 17 | | 13 | 10 | |
| DULL | 0 | 13 | | 3 | 13 | | 15 | 12 | |
| NONRESPONSE | 0 | 0 | | 1 | 0 | | 0 | 0 | |
| <u>PERCEIVED USE OF TALENTS:</u> | | | | | | | | | |
| FAIRLY WELL TO VERY WELL | 94 | 80 | | 97 | 70 | | 88 | 88 | |
| NONE TO VERY LITTLE | 6 | 20 | | 3 | 30 | | 11 | 12 | |
| NONRESPONSE | 0 | 0 | | 0 | 0 | | 1 | 0 | |
| <u>PERCEIVED USE OF TRAINING:</u> | | | | | | | | | |
| FAIRLY WELL TO PERFECT | 97 | 98 | | 97 | 96 | | 91 | 98 | |
| NONE TO VERY LITTLE | 3 | 2 | | 3 | 4 | | 9 | 2 | |
| <u>SENSE OF ACCOMPLISHMENT FROM JOB:</u> | | | | | | | | | |
| SATISFIED | 84 | 58 | | 78 | 74 | | 78 | 74 | |
| NEUTRAL | 10 | 42 | | 13 | 9 | | 7 | 12 | |
| DISSATISFIED | 6 | 0 | | 9 | 17 | | 15 | 14 | |
| <u>REENLISTMENT INTENTIONS:</u> | | | | | | | | | |
| YES OR PROBABLY YES | 39 | 71 | | 47 | 74 | | 63 | 70 | |
| NO OR PROBABLY NO | 59 | 18 | | 50 | 9 | | 13 | 8 | |
| WILL RETIRE | 1 | 11 | | 0 | 17 | | 24 | 22 | |

NOTE: Columns may not add to 100 percent due to rounding or nonresponse
Comparative sample of AIRCREW Career ladders surveyed in 1995. (Include AFSCs 1A5X1)

other similar Air Force specialties. Review of Table 36 reflects that responses from AFSC 1A0X1 TAFMS groups regarding job interest, use of training, reenlistment intentions, and sense of accomplishment gained from work are all positive (80 percent or more). For all TAFMS groups in the current study, lower positive responses were noted in reenlistment intentions than for the comparative sample.

An indication of how job satisfaction perceptions have changed over time is provided in Table 37, where again TAFMS data for 1998 survey respondents are presented, along with data from respondents in the last OSR involving this career ladder published in 1994. Comparison of job satisfaction indicator responses of the current survey TAFMS groups to those in the 1994 survey indicate that current job satisfaction responses are similar. For all TAFMS groups in the current study, lower positive responses were noted in reenlistment intentions. The 49-96 months TAFMS group also showed a low positive response in the area of sense of accomplishment from the job.

Finally, Table 38 represents job satisfaction responses from personnel in the specialty jobs discussed in the **SPECIALTY JOBS** section of this report. An examination of these data can show how overall job satisfaction may be influenced by the type of job performed. Review of the job satisfaction data for the In-Flight Refueling career ladder reveals generally positive responses in the five job satisfaction indicators across all jobs. Personnel in the Management Job revealed low positive responses on every job satisfaction indicator. There was also a low positive response in the area of reenlistment intentions for the In-Flight Refueler/Boom Technician Job and Boom Operator Instructor/Evaluator Job.

IMPLICATIONS

This survey was initiated to provide current job and task data for use in evaluating the AFMAN 36-2108 *Specialty Description* and training documents.

In terms of tasks performed and relative time spent on duties, the In-Flight Refuelers career ladder structure has changed very little since the previous OSR published in 1994. DAFSC 1A031 members are solely performing technical tasks in their duty time. They are predominately found in the In-Flight Refueler/Boom Technician Job. As members advance to the 5-skill level they are still almost purely technical workers. Members advancing to the 7-skill level are still performing tasks very technical in nature, but they are becoming more managerial. As members advance to the 9-/CEM-skill level they devote their time to management and training activities. Survey data show the AFMAN 36-2108 *Specialty Description* accurately reflects the jobs and tasks currently being performed in the career ladder.

Analysis of the AFSC 1A0X1 STS reflects support for most areas, although some were identified as unsupported: establish electrical power, perform communication equipment check, perform operations check of oxygen system, inspect oxygen equipment, operate lighting systems,

TABLE 37

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1A0X1
TAFMS GROUPS IN CURRENT STUDY TO PREVIOUS STUDY
(PERCENT MEMBERS RESPONDING)

| | 1-48 MONTHS TAFMS | | 49-96 MONTHS TAFMS | | 97+ MONTHS TAFMS | |
|--|----------------------------|-----------------|----------------------------|-----------------|-----------------------------|-----------------|
| | CURRENT 1A0X1 (N=69) | 1994 (N=112) | CURRENT 1A0X1 (N=32) | 1994 (N=129) | CURRENT 1A0X1 (N=174) | 1994 (N=308) |
| <u>EXPRESSED JOB INTEREST:</u> | | | | | | |
| INTERESTING | 93 | 96 | 91 | 98 | 82 | 91 |
| SO-SO | 7 | 4 | 6 | 1 | 13 | 6 |
| DULL | 0 | 1 | 3 | 2 | 5 | 4 |
| <u>PERCEIVED USE OF TALENTS:</u> | | | | | | |
| FAIRLY WELL TO PERFECT | 94 | 95 | 97 | 96 | 88 | 92 |
| NONE TO VERY LITTLE | 6 | 5 | 3 | 4 | 11 | 7 |
| <u>PERCEIVED USE OF TRAINING:</u> | | | | | | |
| FAIRLY WELL TO PERFECT | 97 | 100 | 97 | 98 | 91 | 93 |
| NONE TO VERY LITTLE | 3 | 0 | 3 | 2 | 9 | 6 |
| <u>SENSE OF ACCOMPLISHMENT FROM JOB:</u> | | | | | | |
| SATISFIED | 86 | 94 | 78 | 97 | 78 | 85 |
| NEUTRAL | 11 | 3 | 13 | 2 | 7 | 7 |
| DISSATISFIED | 2 | 4 | 9 | 1 | 15 | 8 |
| NONRESPONSE | 0 | 0 | 0 | 0 | 0 | 0 |
| <u>REENLISTMENT INTENTIONS:</u> | | | | | | |
| YES OR PROBABLY YES | 39 | 77 | 47 | 89 | 63 | 76 |
| NO OR PROBABLY NO | 59 | 22 | 50 | 11 | 13 | 5 |
| WILL RETIRE | 1 | 0 | 0 | 0 | 24 | 19 |

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 38

JOB SATISFACTION INDICATORS FOR AFSC 1A0X1 JOB GROUPS
(PERCENT MEMBERS RESPONDING)

| | IN-FLIGHT REFUELING CLUSTER | | | |
|--|--|----------------------------------|--|-------------------|
| | IN-FLIGHT REFUELER/BOOM TECHNICIAN JOB | CCTS FLIGHT INSTRUCTOR JOB | BOOM OPERATOR INSTRUCTOR/EVALUATOR JOB | MANAGEMENT JOB |
| <u>EXPRESSED JOB INTEREST:</u> | | | | |
| INTERESTING | 87 | 100 | 85 | 57 |
| SO-SO | 11 | 0 | 14 | 14 |
| DULL | 2 | 0 | 1 | 29 |
| <u>PERCEIVED USE OF TALENTS:</u> | | | | |
| FAIRLY WELL TO PERFECT | 90 | 100 | 83 | 57 |
| NONE TO VERY LITTLE | 9 | 0 | 7 | 43 |
| <u>PERCEIVED USE OF TRAINING:</u> | | | | |
| FAIRLY WELL TO PERFECT | 94 | 100 | 94 | 58 |
| NONE TO VERY LITTLE | 6 | 0 | 6 | 43 |
| <u>SENSE OF ACCOMPLISHMENT FROM JOB:</u> | | | | |
| SATISFIED | 78 | 100 | 81 | 57 |
| NEUTRAL | 11 | 0 | 8 | 0 |
| DISSATISFIED | 11 | 0 | 11 | 43 |
| <u>REENLISTMENT INTENTIONS:</u> | | | | |
| YES OR PROBABLY YES | 61 | 85 | 61 | 43 |
| NO OR PROBABLY NO | 31 | 7 | 11 | 14 |
| WILL RETIRE | 8 | 7 | 28 | 43 |

and air refueling hydraulic systems. The STS document should be thoroughly examined to determine if areas should be retained or deleted in the next Career Field Education and Training Plan (CFETP). The tasks with high percentages of members performing should be examined for inclusion into the CFETP documents.

Members of the In-Flight Refueling specialty appear to be fairly satisfied with their jobs, with job satisfaction staying consistent with those in the 1994 survey. The most notable exception is the somewhat lower positive responses concerning reenlistment intentions by All TAFMS groups compared to those in 1994.

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APPENDIX A

**SELECTED REPRESENTATIVE TASKS PERFORMED BY
MEMBERS OF CAREER LADDER JOBS**

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TABLE I
IN-FLIGHT REFUELING CLUSTER
(CL009)

GROUP SIZE: 354
PERCENT OF SAMPLE: 98%
PREDOMINANT GRADE: E-5
AVERAGE NUMBER OF TASKS PERFORMED: 157

AVERAGE TICF: 102 MOS
AVERAGE TAFMS: 132 MOS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

| REPRESENTATIVE TASKS | PERCENT MEMBERS PERFORMING |
|---|----------------------------------|
| G247 Perform post air refueling boom checklist procedures | 100 |
| G221 Monitor boom positions prior to contact and after disconnect | 99 |
| G217 direct receiver aircraft into refueling position using pilot director lights | 99 |
| G225 Monitor radio communications | 99 |
| E158 Open or close crew entrance doors | 99 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 99 |
| F197 Operate doors or hatches during normal conditions | 99 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 98 |
| H264 Compute weight and balance | 98 |
| G216 Direct receiver aircraft during air refueling | 98 |
| E154 Monitor aircraft approaches | 98 |
| F203 Perform decent and before-landing procedures | 98 |
| G234 Perform EMCON option-2 air refueling procedures | 98 |
| E150 Instruct crew members or passengers on in-flight or ground emergency procedures | 98 |
| E184 Secure equipment for flight operations | 97 |
| E188 Visually inspect cargo or passenger compartments | 97 |
| E155 Monitor aircraft takeoff procedures | 97 |
| E168 Participate in crew operation debriefings | 97 |
| E151 Load crew gear on aircraft | 97 |
| F190 Brief flight crews concerning air refueling mission activities | 97 |
| F191 Coordinate crew duties with other crew members | 97 |
| E156 Monitor aircraft taxi procedures | 97 |
| G218 Inform pilots of tanker refueling operation status | 96 |
| E152 Maintain currency of flight manuals, safety and operational supplements, or flight crew checklists | 95 |
| E153 Monitor air traffic control clearances | 95 |
| G219 Inform pilots of boom positions during receiver air refueling | 93 |
| E171 Participate in premission weather briefings | 78 |

TABLE II
IN-FLIGHT REFUELER/BOOM TECHNICIAN JOB
(ST038)

GROUP SIZE: 196
PERCENT OF SAMPLE: 54%
PREDOMINANT GRADE: E-5
AVERAGE NUMBER OF TASKS PERFORMED: 148

AVERAGE TICF: 83 MOS
AVERAGE TAFMS: 109 MOS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

| TASKS | PERCENT MEMBERS PERFORMING |
|---|----------------------------------|
| G221 Monitor boom position prior to contact and after disconnect | 100 |
| G216 Direct receiver aircraft during air refueling | 100 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 100 |
| E158 Open or close crew entrance doors | 100 |
| H271 Direct cargo or passenger loading or unloading | 100 |
| E164 Operate galley equipment | 100 |
| G217 Direct receiver aircraft into refueling position using pilot director lights | 99 |
| H264 Compute weight and balance | 99 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 99 |
| G225 Monitor radio communications | 99 |
| G218 Inform pilots of tanker refueling operation status | 99 |
| G247 Perform post air refueling boom checklist procedures | 99 |
| E188 Visually inspect cargo or passenger compartments | 99 |
| G234 Perform EMCON option-2 air refueling procedures | 99 |
| F197 Operate doors or hatches during normal conditions | 99 |
| G219 Inform pilots of boom positions during receiver air refueling | 98 |
| E154 Monitor aircraft approaches | 98 |
| F203 Perform descent and before-landing procedures | 98 |
| H292 Secure cargo | 98 |
| E184 Secure equipment for flight operations | 97 |
| F191 Coordinate crew duties with other crew members | 97 |
| E155 Monitor aircraft takeoff procedures | 97 |
| E151 Load crew gear on aircraft | 97 |
| E168 Participate in crew operation debriefings | 97 |
| F190 Brief flight crews concerning air refueling mission activities | 96 |
| E152 Maintain currency of flight manuals, safety and operational supplements, or flight crew checklists | 96 |
| G224 Monitor fuel panels | 96 |
| F205 Perform normal ground checklist procedures | 92 |

TABLE III
CCTS FLIGHT INSTRUCTOR JOB
(ST033)

GROUP SIZE: 27
PERCENT OF SAMPLE: 7%
PREDOMINANT GRADE: E-5
AVERAGE NUMBER OF TASKS PERFORMED: 154

AVERAGE TICF: 116 MOS
AVERAGE TAFMS: 145 MOS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

| TASKS | PERCENT MEMBERS PERFORMING |
|--|----------------------------------|
| G233 Perform emission control (EMCON) option-1 air refueling procedures | 100 |
| G221 Monitor boom positions prior to contact and after disconnect | 100 |
| B79 Conduct initial in-flight qualification training | 100 |
| G225 Monitor radio communications | 100 |
| E158 Open or close crew entrance doors | 100 |
| G254 Refuel receiver aircraft with boom refueling normal systems | 100 |
| E155 Monitor aircraft takeoff procedures | 100 |
| G246 Perform or practice tanker air refueling breakaway procedures | 100 |
| G224 Monitor fuel panels | 100 |
| G216 Direct receiver aircraft during air refueling | 100 |
| E154 Monitor aircraft approaches | 100 |
| E168 Participate in crew operation debriefings | 100 |
| G217 Direct receiver aircraft into refueling position using pilot director lights | 100 |
| G218 Inform pilots of tanker refueling operations status | 100 |
| G238 Perform manual gear and flap extension checklist procedures | 100 |
| E152 Maintain currency of flight manuals, safety and operational supplements, or flight crew checklists | 100 |
| E169 Participate in general or specialized mission briefings, other than intelligence or weather briefings | 100 |
| F203 Perform descent and before-landing procedures | 100 |
| F197 Operate doors or hatches during normal conditions | 100 |
| E156 Monitor aircraft taxi procedures | 96 |
| E184 Secure equipment for flight operations | 100 |
| G247 Perform post air refueling boom checklist procedures | 100 |
| B96 Evaluate progress of trainees | 85 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 100 |
| H264 Compute weight and balance | 100 |
| E150 Instruct crew members or passengers on in-flight or ground emergency procedures | 100 |

TABLE IV

**BOOM OPERATOR INSTRUCTOR/EVALUATOR JOB
(ST045)**

GROUP SIZE: 72
 PERCENT OF SAMPLE: 20%
 PREDOMINANT GRADE: E-7
 AVERAGE NUMBER OF TASKS PERFORMED: 207

AVERAGE TICF: 147 MOS
 AVERAGE TAFMS: 186 MOS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS
 PERFORMING:

| TASKS | PERCENT MEMBERS PERFORMING |
|---|----------------------------------|
| G254 Refuel receiver aircraft with boom refueling normal systems | 100 |
| H264 Compute weight and balance | 100 |
| G225 Monitor radio communications | 100 |
| G249 Perform preparation for contact checklist procedures for normal boom air refueling | 100 |
| H271 Direct cargo or passenger loading or unloading | 100 |
| F198 Perform after-landing and parking procedures | 100 |
| G234 Perform EMCON option-e air refueling procedures | 100 |
| F197 Operate doors or hatches during normal conditions | 100 |
| G247 Perform post air refueling boom checklist procedures | 100 |
| F203 Perform descent and before-landing procedures | 100 |
| E168 Participation crew operation debriefings | 100 |
| E151 Load crew gear on aircraft | 100 |
| G217 Direct receiver aircraft into refueling position using pilot director lights | 99 |
| G216 Direct receiver aircraft during air refueling | 99 |
| E152 Maintain currency of flight manuals, safety and operational supplements, or flight crew checklists | 99 |
| E155 Monitor aircraft takeoff procedures | 99 |
| E154 Monitor aircraft approaches | 99 |
| E158 Open or close crew entrance doors | 99 |
| H292 Secure cargo | 99 |
| F191 Coordinate crew duties with other crew members | 99 |
| E153 Monitor air traffic control clearances | 99 |
| E156 Monitor aircraft taxi procedures | 99 |
| G221 Monitor boom positions prior to contact and after disconnect | 97 |
| G218 Inform pilots of tanker refueling operation status | 97 |
| E184 Secure equipment for flight operations | 97 |
| E188 Visually inspect cargo or passenger compartments | 97 |
| G223 Monitor flight instruments | 96 |

TABLE V
MANAGEMENT JOB
(ST011)

GROUP SIZE: 7
PERCENT OF SAMPLE: 2%
PREDOMINANT GRADE: E-6
AVERAGE NUMBER OF TASKS PERFORMED: 203

AVERAGE TICF: 174 MOS
AVERAGE TAFMS: 223 MOS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

| TASKS | | PERCENT MEMBERS PERFORMING |
|-------|--|----------------------------------|
| A23 | Direct administrative functions | 100 |
| A21 | Develop or establish work methods or procedures | 100 |
| A14 | Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace | 100 |
| H280 | Perform cargo tie-down procedures | 100 |
| H282 | Perform load planning for cargo or passenger missions, other than for deployments | 100 |
| H292 | Secure cargo | 100 |
| E153 | Monitor air traffic control clearances | 100 |
| H268 | Configure aircraft for palletized cargo | 100 |
| F190 | Brief flight crews concerning air refueling mission activities | 100 |
| C126 | Safeguard classified materials | 86 |
| C108 | Destroy classified materials | 86 |
| A19 | Develop self-inspection or self-assessment program checklists | 86 |
| C110 | Identify and report suspected security compromises | 86 |
| C155 | Inventory classified materials | 86 |
| H269 | Coordinate load requirements with support agencies | 86 |
| I312 | Load plan aircraft for deployments | 86 |
| H279 | Operate cargo loading equipment | 86 |
| H274 | Inspect cargo for air transport | 86 |
| A20 | Develop inputs to mobility, contingency, disaster preparedness, or unit emergency or alter plans | 71 |
| A24 | Direct training functions | 71 |
| C116 | Maintain administrative files, such as correspondence files or classified files | 71 |
| B77 | Conduct cargo loading training | 71 |
| C109 | Establish accountability records for classified materials or documents | 71 |
| A30 | Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs) | 71 |
| A55 | Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting | 71 |

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